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JAMES E. BICKFORD
SECRETARY

PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
14 REILLY RD
FRANKFORT KY 40601

MAR 3 2000

Julie Elliott, Storm Water Permit Engineer
Louisville and Jefferson County
Metropolitan Sewer District
700 West Liberty Street
Louisville, Kentucky 40203-1911

Re: Louisville-MSD
KPDES No.: KYS000001
Jefferson County, Kentucky

Dear Ms. Elliott:

Enclosed is the Kentucky Pollutant Discharge Elimination System (KPDES) permit for the above-referenced facility. This action constitutes a final permit issuance under 401 KAR 5:075, pursuant to KRS 224.16-050.

This permit will become effective on the date indicated in the attached permit provided that no request for adjudication is granted. All provisions of the permit will be effective and enforceable in accordance with 401 KAR 5:075, unless stayed by the Hearing Officer under Sections 11 and 13.

Any demand for a hearing on the permit shall be filed in accordance with the procedures specified in KRS 224.10-420, 224.10-440, 224.10-470 and any regulations promulgated thereto. Any person aggrieved by the issuance of a permit final decision may demand a hearing, pursuant to KRS 224.10-420(2), within thirty (30) days from the date of the issuance of this letter. Two (2) copies of request for hearing should be submitted in writing to the Natural Resources and Environmental Protection Cabinet, Office of Administrative Hearings, 35-36 Fountain Place, Frankfort, Kentucky 40601 and the Commonwealth of Kentucky, Natural Resources and Environmental Protection Cabinet, Division of Water, 14 Reilly Road, Frankfort, Kentucky 40601. For your record keeping purposes, it is recommended that these requests be sent by certified mail. The written request must conform to the appropriate statutes referenced above.

If you have any questions regarding the KPDES decision, please contact Courtney Seitz, Inventory and Data Management Section, KPDES Branch, at (502) 564-2225, extension 465.

Further information on procedures and legal matters pertaining to the hearing request may be obtained by contacting the Office of Administrative Hearings at (502) 564-7312.

Sincerely,

Jack A. Wilson, Director
Division of Water

JAW:NG:ng
Enclosure
c: U.S. EPA Region IV
Louisville Regional Office
Division of Water Files

RESPONSE 6: MSD is aware of the necessity of baseline monitoring prior to construction of control measures as well as post construction monitoring to determine the effectiveness of the measures used. The unpredictable nature of dealing with wet weather problems dictates the use of Best Professional Judgement (BPJ) for most projects rather than automatic use of certain control measures. The analysis of a particular project can involve evaluation of already proven controls as well as relatively new methods to achieve the best results. One problem with evaluation of wet weather technology is that effective quantity control does not necessarily mean effective quality control. Quality concerns are relatively new for wet weather events where quantity has been the sole concern in the past.

COMMENT 7: There is particular concern over property development in the St. Matthews area.

RESPONSE 7: MSD has met with St. Matthews officials to discuss development and meeting the requirements for the permit. Future plans include the implementation of Best Management Practices (BMP) for projects over the next five (5) years.

COMMENT 8: MSD continues stream channelization over objection of citizens.

RESPONSE 8: Stream construction should follow storm water BMP in accordance with the 401 water quality certification issued by the state under the Federal 404 permit program.

COMMENT 9: Delineation of wetlands needs to be better addressed in Jefferson County.

RESPONSE 9: Designation of wetlands is the responsibility of the Corps of Engineers. Any construction affecting a wetland will require approval from the Corps. Both the Division and MSD have a coordination obligation to ensure protection of the wetlands.

COMMENT 10: Floodplain maps and updated floodplain related material should be readily available to the public.

RESPONSE 10: As pointed out in previous responses, the MS4 permit is designed to address storm water quality, not quantity. However, even if not the primary concern from an MS4 standpoint, flood control should at least be a secondary concern when designing MS4 control measures. The Division does maintain a library of floodplain maps and related material available for public use.

COMMENT 11: Natural landscaping incorporating native vegetation and organic controls should substitute for pesticides.

RESPONSE 11: A typical BMP incorporates vegetation and green space for storm water control. The type of vegetation is site-specific, but qualified personnel should recognize that use of vegetation native to the specific area would be the most cost-effective alternative, in most cases. The use of pesticides and herbicides should be a major subject in the public education element of the MS4 program.

COMMENT 12: Trash from shopping centers frequently finds its way to streams.

RESPONSE 12: Effective shopping center BMP and continuing public education program should help alleviate this problem.

COMMENT 13: There is a need for a sinkhole ordinance in Jefferson County.

RESPONSE 13: Any storm water finding its way to a sinkhole becomes water of the Commonwealth, subject to applicable water quality standards and the conditions of the MS4 permit for separate storm sewers contributing to those receiving waters.

COMMENT 14: MSD needs personnel with hydrology and Karst hydrology experience.

RESPONSE 14: The Division has no control over the type of personnel hired by MSD. MSD is aware of the task ahead relative to wet weather impacts and should take the necessary steps to acquire and train personnel proficient to do the job. Also, MSD may, as in the past, utilize consulting firms to handle specific program elements.

COMMENT 15: Public consultation and awareness is often after the fact and does not lend to effective participation in the decision making process.

RESPONSE 15: Several specific examples were offered to support the above-generalized comment. The Division, in its review of the program to this point, has considered the public education portion to be satisfactory. MSD has provided numerous opportunities to involve and educate the public concerning the storm water program. A formation of a committee, task force, or work group may be a consideration. The Division recognizes the problem with technical information and data not always being in a format understandable to the general public. It is a problem we have to deal with ourselves and, unfortunately, cannot always be resolved to everyone's satisfaction.

COMMENT 16: The annual reports are "confusing", and contain "extraneous, unnecessary text". The reports should indicate scheduling and prioritization to control pollution from the storm water outfalls. The CD-ROM reporting should be supplemented with hard copy maps for public record.

RESPONSE 16: The Division acknowledges that the reporting can be improved. We have been communicating with MSD to develop and submit a consolidated wet weather report to address storm water, combined sewer overflows (CSO), and separate sanitary sewer overflows (SSO) impacts on a watershed basis. Rather than submit three (3) separate annual reports dealing with wet weather impacts, one (1) comprehensive report will be submitted annually. The first consolidated report was submitted in December 1999. Review has not been completed, but hopefully it will be an improvement and easier to refine into a useful, beneficial document. Any one (1) of these three (3) programs would be difficult to implement, but trying to coordinate all three (3) is a task not easily accomplished and is an evolutionary process. MSD is making progress.

COMMENT 17: Concern was expressed about the discharge of industrial pollutants under the cover of heavy rains.

RESPONSE 17: The unpermitted discharge of pollutants during heavy rains through the municipal separate storm sewer system qualifies as an illicit discharge subject to enforcement action and penalties.

Several comments pertained to subjects not related to the permit in question. These include local limits, wastewater point source outfalls, combined sewer overflows, new sewer line connections, and wastewater holding tanks. Although inappropriate to respond to these subjects at this time, Division personnel are available to address these topics under more appropriate circumstances.

Any demand for a hearing on the permit shall be filed in accordance with the procedures specified in KRS 224.10-420, 224.10-440, 224.10-470, and any regulations promulgated thereto. Any person aggrieved by the issuance of a permit final decision may demand a hearing, pursuant to KRS 224.10-420(2), within thirty (30) days from the date of the issuance of this letter. Two (2) copies of the request for hearing should be submitted in writing to the Natural Resources and Environmental Protection Cabinet, Office of Administrative Hearings, 35-36 Fountain Place, Frankfort, Kentucky 40601, and the Commonwealth of Kentucky, Natural Resources and Environmental Protection Cabinet, Division of Water, 14 Reilly Road, Frankfort, Kentucky 40601. For your record keeping purposes, it is recommended that these requests be sent by certified mail. The written request must conform to the appropriate statutes referenced above.

If you have any questions regarding these responses, please contact Herb Ray, KPDES Branch, at (502) 564-2225, extension 431.

Further information on procedures and legal matters pertaining to the hearing request may be obtained by contacting the Office of Administrative Hearings at (502) 564-7312.

Sincerely,

Jack A. Wilson, Director
Division of Water

JAW:HR:pg

KPDES

KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

PERMIT

PERMIT No.: KYS000001

AUTHORIZATION TO DISCHARGE UNDER THE KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

Pursuant to Authority in KRS 224,

Louisville and Jefferson County Metropolitan Sewer District 700 West Liberty Street Louisville, Kentucky 40203-1911	Jefferson County 531 Court Place Louisville, Kentucky 40202	City of Prospect P.O. Box 1 Prospect, Kentucky 40059
Kentucky Transportation Cabinet District 5 977 Phillips Lane Louisville, Kentucky 40209	City of Shively 3920 Dixie Highway Shively, Kentucky 40216	City of St. Matthews 3940 Grandview Avenue Louisville, Kentucky 40207
City of Jeffersontown 10146 Watterson Trail Jeffersontown, Kentucky 40299	City of Louisville 601 West Jefferson Street Louisville, Kentucky 40202	City of Anchorage P.O. Box 23266 Anchorage, Kentucky 40223

is authorized to discharge from

a large municipal separate storm sewer system

to receiving waters named

Waters of the Commonwealth

in accordance with conditions set forth in this document, contents of the application submittals and annual reports, 401 KAR Chapter 5, and other requirements in 40 CFR 122.26 rules and regulations.

This permit shall become effective on MAY 1 2000

This permit and the authorization to discharge shall expire at midnight, March 31, 2004.

MAR 3 2000
Date Signed

Jack A. Wilson, Director
Division of Water

Robert W. Logan
Commissioner

DEPARTMENT FOR ENVIRONMENTAL PROTECTION
Division of Water, Frankfort Office Park, 14 Reilly Road, Frankfort, Kentucky 40601

Printed on Recycled Paper

I. Legal Authority

- Control through ordinance, permit, contract, order or similar means, the contribution of pollutants to the municipal storm sewer by storm water discharges associated with industrial activity and the quality of storm water discharged from sites of industrial activity;

- Prohibit through ordinance, order or similar means, illicit discharges to the municipal separate storm sewer;

- Control through ordinance, order or similar means the discharge to municipal separate storm sewer of spills, dumping or disposal of materials other than storm water;

- Control through interagency agreements among co-applicants the contribution of pollutants from one portion of the municipal system to another portion of the municipal system;

- Require compliance with conditions in ordinances, permits, contracts or order;

- Carry out all inspection, surveillance and monitoring procedures necessary to determine compliance and noncompliance with permit conditions including the prohibition on illicit discharges to the municipal separate storm sewer.

II. Monitoring Requirements

Representative data collection for the term of the permit shall be used to provide estimates for each major outfall of the seasonal pollutant load and event mean concentration for any constituent detected as stipulated in 122.26(d)(2)(iii)(A)(3).

III. Storm Water Management Program

The storm water management program is an integral part of the overall watershed management plan which includes non-point sources, wastewater treatment point sources, and combined sewer overflow point sources. A comprehensive wet weather plan utilizing an integrated approach for prioritization and implementation is necessary to adequately address the watershed needs. Implementation of a program to effectively reduce pollutants (including floatables) in discharges from municipal separate storm sewers should include:

- Maintenance activities for structural controls;

- Construction activities for areas of new development and significant redevelopment in accordance with the Erosion Prevention and Sediment Control Ordinance.

- Maintenance of public streets, roads and highways, including pollutants discharged as a result of deicing activities;

- Flood management projects shall assess water quality impacts and existing structures shall be retrofitted, if feasible, to provide additional pollutant removal from storm water;

- Reduction to the maximum extent practicable pollutants associated with the application of pesticides, herbicides, and fertilizer;

- Illicit discharges to the municipal separate storm sewer system are prohibited. On-going field screening shall be conducted as an effective means of control;

- Pollutant sources from municipal landfills, hazardous waste treatment, disposal, and recovery facilities and other industrial facilities shall be monitored and controlled;

- Implementation of an on-going educational and public information program management, use and disposal of materials which may contribute to pollutant loads in storm water.

IV. Fiscal Requirements

Funding shall be established and maintained to ensure the accomplishment of the activities designated in 122.26(d)(2)(iii) & (iv).

V. Annual Reporting

An annual report shall include but not be limited to:

- A summary of monitoring data accumulated during the report year.

- Status of the implementation and proposed changes to the storm water management program to include assessment of controls and specific improvements or degradation to water quality.

- Summary of enforcement actions, inspections and status of the public education program.

- Status of expenditures and budget for the present year and the next three (3).

JAMES E. BICKFORD
SECRETARY

PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
14 REILLY RD
FRANKFORT KY 40601

FACT SHEET

**KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM
TO DISCHARGE FROM
A LARGE MUNICIPAL SEPARATE STORM SEWER SYSTEM
INTO WATERS OF THE COMMONWEALTH**

Permit No.: KYS000001 **Permit Writer:** Herb Ray **Date:** February 28, 2000

1. **SYNOPSIS OF APPLICATION**

a. Names and Addresses of Applicants

Louisville and Jefferson County Metropolitan Sewer District 700 West Liberty Street Louisville, Kentucky 40203-1911	Jefferson County 531 Court Place Louisville, Kentucky 40202	City of Prospect P.O. Box 1 Prospect, Kentucky 40059
Kentucky Transportation Cabinet District 5 977 Phillips Lane Louisville, Kentucky 40209	City of Shively 3920 Dixie Highway Shively, Kentucky 40216	City of St. Matthews 3940 Grandview Avenue Louisville, Kentucky 40207
City of Jeffersontown 10146 Watterson Trail Jeffersontown, Kentucky 40299	City of Louisville 601 West Jefferson Street Louisville, Kentucky 40202	City of Anchorage P.O. Box 23266 Anchorage, Kentucky 40223

b. Description of Applicant's Operation

The applicant operates a large municipal separate storm sewer system through such control mechanisms as legal authority, source identification, discharge characterization, management program, assessment of controls, and fiscal analysis.

2. **PERMIT DURATION**

Expires March 31, 2004. This expiration date will place the facility in the correct 5-year cycle as per the Kentucky Watershed Management Framework. In this instance, the permit is scheduled for reissuance in April 2004 for the Salt/Licking Basin Management Unit.

3. **THE ADMINISTRATIVE RECORD**

The Administrative Record, including application, draft permit, fact sheet, public notice, comments received, and additional information is available for review at the Division of Water at 14 Reilly Road, Frankfort Office Park, Frankfort, Kentucky 40601.

4. **CONTACT**

Herb Ray
KPDES Permit Writer
(502) 564-2225, extension 431

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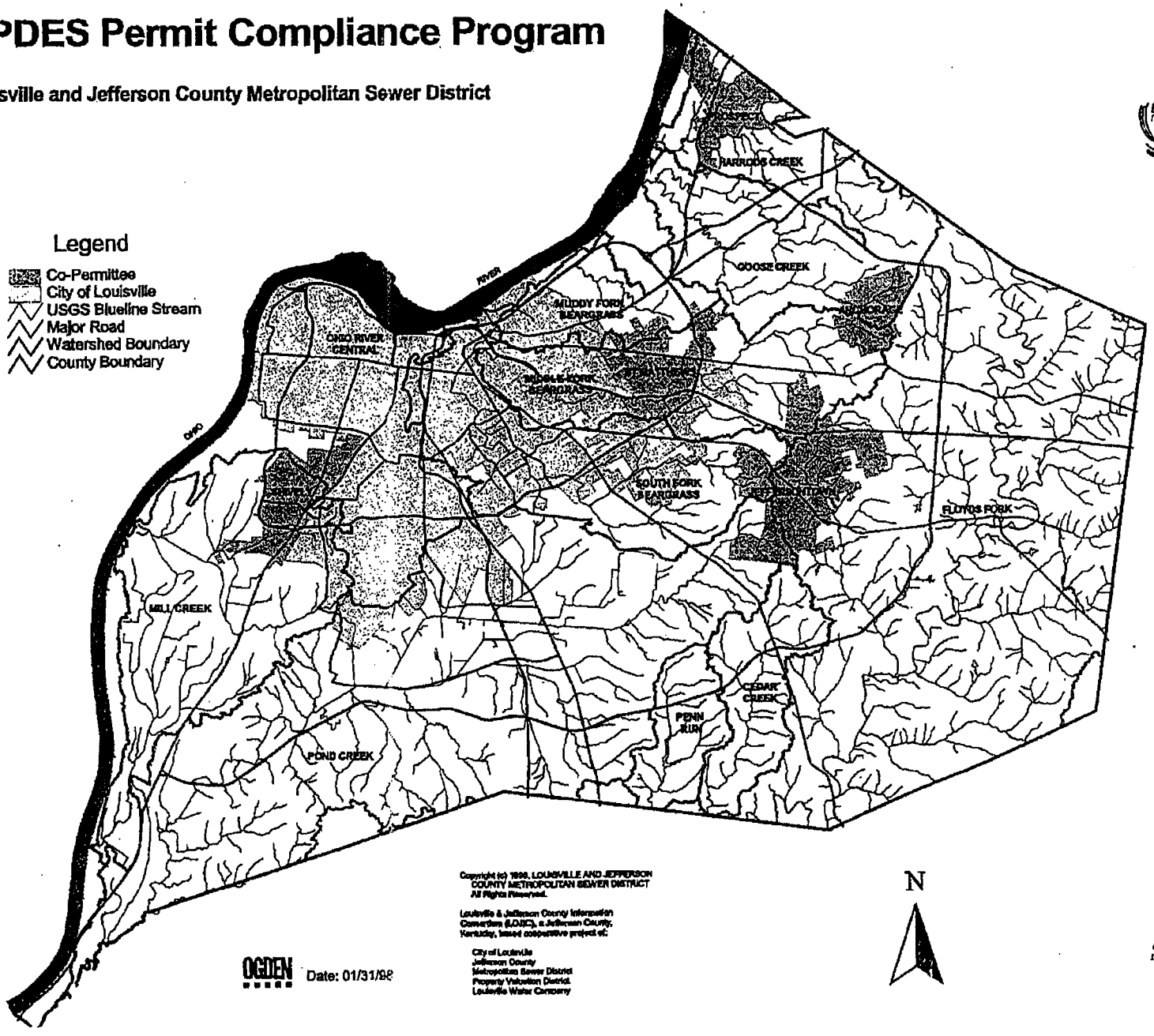
KPDES Permit Compliance Program

Louisville and Jefferson County Metropolitan Sewer District

MSD



Louisville & Jefferson County Information Corporation (LOJIC), a Jefferson County, Kentucky, based cooperative project of:

City of Louisville
Jefferson County
Metropolitan Sewer District
Property Valuation District
Louisville Water Company

OGDEN Date: 01/31/98

LOJIC

ILLICIT DISCHARGE PROGRAM

The program to detect and eliminate illicit connections and improper disposal to the MS4 will be improved and intensified. MSD staff or the appropriate co-permittee will be responsible for follow-up of the illicit connections that are discovered. The program will include the following components:

ID	Who	Status	Start	Frequency	Description
ID-1	MSD	O	1999	As-needed	*Implement an Aggressive Follow-up Program.* A program will be initiated to follow-up on identified potential illicit connections and illegal dumping activities. The goal of the program is to identify and eliminate the source of the problem. An identification and disconnection process will be implemented. MSD (or appropriate co-permittee) will initiate follow-up for the storm water sewers.
	Anchorage	N	"	"	
	Jeffersontown	N	"	"	
	Prospect	N	"	"	
	Shively	N	"	"	
	St. Matthews	N	"	"	
ID-2	MSD	O	1999	Annual	*Storm Water Outfall Location, Structure Inventory and Screening Program.*. The Storm Water Outfall and Structure Inventory Program will continue for the next five years. The program will revisit watersheds, retest contaminated outfalls, and attempt to determine the source of the contamination. We anticipate using students for this program. The students will also check the Jefferson County storm water infrastructure data. A pilot study will be conducted that examines collecting data during anticipated high use times (weekends, evenings, and non-summer/non-vacation times).
	Anchorage	N	"	"	
	Jeffersontown	N	"	"	
	Prospect	N	"	"	
	Shively	N	"	"	
	St. Matthews	N	"	"	
ID-3	MSD	N	1999	As-needed	*Database/Case Tracking System.* Develop a tracking system for illicit connections to indicate the estimated volume of the discharge, the frequency, the material or pollutant being discharged, the location in the MS4, and what actions were taken to either identify or eliminate the source of the discharge. The co-permittees will submit data for their jurisdictions to MSD. MSD will be responsible for database management.
	Anchorage	"	"	"	
	Jeffersontown	"	"	"	
	Prospect	"	"	"	
	Shively	"	"	"	
	St. Matthews	"	"	"	
ID-4	Prospect	N	1999	Once	*Illicit Discharge/Illegal Dumping Ordinance.* The City of Prospect will amend its ordinance that prohibits illicit connections and illegal dumping to the MS4 to ensure that it is in concert with the intent of this program.
ID-5	MSD	N	1999	Annually	*Education.* MSD will provide education on sections of the Wastewater Discharge Regulations (WDRs) and the co-permittees will provide education on their local ordinance(s) that prohibit illicit connections and illegal dumping. Attendance of the education program will become mandatory as part of the enforcement program for violators of these regulations. The City of Prospect will develop a similar program to educate its citizens and staff about the illicit discharge prohibition and its relevance to KPDES permit compliance.
	Anchorage	"	"	"	
	Jeffersontown	"	"	"	
	Prospect	"	"	"	
	Shively	"	"	"	
	St. Matthews	"	"	"	
	KTC	O	1999	"	

CONSTRUCTION SITE RUNOFF CONTROLS

Sedimentation and erosion from land disturbing activities can have severe impacts to stream systems. An aggressive program to control these non-point pollution sources will be implemented, and will include the following elements:

ID	Who	Status	Start	Frequency	Description
CS-1	MSD	N	1999	Continual	*Erosion Prevention and Sediment Control (EPSC) Plan.* An EPSC Plan will be required for new development and will have provisions for Best Management Practices (BMPs) to keep sediment on-site (silt fence, staked bales, sediment ponds, gravel mats) and to capture sediment that is in local or on-site drainage, such as ditch checks and inlet protection.
	Anchorage	"	"	"	
	Jeffersontown	"	"	"	
	Prospect	"	"	"	
	Shively	"	"	"	
	St. Matthews	"	"	"	
	KTC	"	"	"	
CS-2	MSD	O	1999	Annual	*Training for Designers/Planners/Developers.* During the next five years, MSD will conduct a series of workshops on EPSC Methods for the area designers and planners. Topics covered will include pre-construction planning (basic development practices), design procedures for structural and non-structural BMPs, pollutant removal (maintenance of the BMPs), and inspections.
CS-3	MSD	N	1999	Annual	*Training for Operators.* A training program for equipment operators and construction managers will be provided that describes the proper installation and maintenance of construction site BMPs. The video will be available to operators as they acquire construction permits.
CS-4	MSD	N	1999	Once	*Guidance Materials.* Guidance materials will be provided to designers/planners/developers/MSD and co-permittee staff to be utilized for their EPSC Plans and inspections.
CS-5	MSD	O	1999	Continual	*Scheduled Inspections of BMPs.* Inspectors will conduct scheduled inspections of construction sites. A checklist will be developed to assist the inspectors and developers on correct procedures and requirements.
	Anchorage	"	"	"	
	Jeffersontown	"	"	"	
	Prospect	"	"	"	
	Shively	"	"	"	
	St. Matthews	"	"	"	
	KTC	"	"	"	
	County	"	"	"	
	Louisville	"	"	"	
CS-6	Owner/ Operator	O	1999	Continual	*BMP Maintenance Schedule.* A BMP maintenance schedule will be required for every structural BMP. Inspectors will visit the sites on scheduled and non-scheduled occasions to ensure the maintenance schedule is met.
		"	"	"	
		"	"	"	

POST CONSTRUCTION CONTROLS

Non-point source pollution controls for new development and areas of redevelopment will include actions designed to provide source control through exposure minimization. These BMPs will provide the proper perspective for planning site development, protecting stream corridors, and providing regulations and policies related to managing the increase in impervious areas. Some of these controls may be used to retrofit existing storm water management systems or facilities to provide water quality protection. The post construction controls to be implemented include:

ID	Who	Status	Start	Frequency	Description
PC-1	MSD	N	2000	Annual	*Watershed Planning.* Watershed assessments will be initiated during the second year of the permit cycle. These assessments will be used to determine the chemical, physical, and biological health of the watersheds, to identify sensitive areas, to identify sources of pollutants and/or habitat loss, to set goals for the watersheds, and to determine strategies for reaching the goals. A prioritized list of the most sensitive areas will be established. Resource levels will determine the extent and number completed by the end of the permit cycle. The results of these assessments will be integrated into the Storm Water Annual Reports.
PC-2	MSD Anchorage Jeffersontown Prospect Shively St. Matthews KTC	N " " " " " "	2000 " " " " " "	Annual " " " " " "	*Pilot BMP Projects.* Over the next five years, MSD and the co-permittees will each complete a minimum of three BMP Pilot Projects. *The following points should be noted.* *1. The scope of the pilot projects will be at the site level, not countywide.* *2. The pilot projects are intended to evaluate the effectiveness of appropriate BMPs and do not constitute new development standards for the community.* The following is a list of potential BMPs. MSD and co-permittees may select from the list or may choose other, more appropriate BMPs. • *Storm Water Control.* Performance-based standards may be developed for local detention requirements. The standards may address runoff volume and rate, and pollutant removal efficiencies. Maintenance requirements may be part of the standards to ensure the facilities perform to their design specifications.

ID	Who	Status	Start	Frequency	Description
PC-2 Cont.					➢ *Wet Ponds*. Wet ponds may be required as a treatment method in areas likely to generate high pollutant loads and where the drainage area is large enough (at least 25 acres) to sustain a permanent pool. Minimum requirements for pond geometry may be incorporated in the performance standards to ensure that short-circuiting does not occur. Methods to lower discharge temperature and provide aeration of the discharge may be considered. Sedimentation facilities, such as forebays, may be required unless a satisfactory maintenance plan is proposed for removal of sediment from the pond. ➢ *Dry Ponds*. Dry ponds may require features that provide sedimentation and bio-filtering during the smaller, more frequent events. ➢ *On-site Bio-Retention*. The performance standards may allow developers to utilize on-site drainage-ways as wetlands or bio-retention areas to meet runoff quality goals. • *Stream Corridor Protection*. Overlay districts for stream corridor protection may be identified based on the results of the watershed assessments. These overlay districts will generally fall within the 100-year floodplain, but may extend beyond the 100-year boundaries in locations where the floodplain is mapped at or near the top of bank of the stream. Construction and other land disturbing activities may be prohibited and/or restricted in these areas where natural vegetated stream buffers would be required. ➢ *Buffer Strips*. Buffer strips may be required along perennial and intermittent blueline streams. These strips are bio-filters that remove pollutants from the water column as it passes through the vegetation, both by slowing the flow and causing suspended pollutants to settle, and by promoting infiltration, biological uptake of nutrients, and absorption of other pollutants to soil particles. ➢ *Greenways*. Greenways may be developed where easements exist or can be acquired along channels and streams throughout Jefferson County. The greenways will be coordinated with the Greenways Master Plan. ➢ *Vegetated Channels*. Vegetated channels, grassed swales, and other passive controls may become part of the site design process. ➢ *Streambank Stabilization*. To protect the stream corridor and both the aquatic and riparian habitats, stream banks in many areas require stabilization. New programs for discharge control will provide some protection against future problems. Existing problems will be prioritized and addressed over the term of the permit. The solutions will be dictated by conditions on a case-by-case basis, but may include actions such as soil-bioengineering, riprap, gabions, cribbing, and others.

ID	Who	Status	Start	Frequency	Description
PC-2 Cont.					➢ *Stream Restoration.* Damage done to area streams by past channelization or hydro-modification caused by high flow rates may be investigated and, where practical, plans may be developed and implemented to restore the streams. • *Impervious Area Runoff Controls.* Developments that characteristically have relatively high levels of imperviousness, such as parking lots and rooftops at business parks, shopping centers, schools, and high density residential development, may be required to control runoff quantity and quality. The procedures for controlling water quality from these areas may concentrate on treatment of the first flush (runoff from the first half inch of rainfall) and discharge controls separately or jointly through a single facility such as a wet pond. The following BMPs are examples of what may be used to treat impervious area runoff quality: ➢ Installation of StormCeptor™ system to treat design storm runoff ➢ Installation of StormTreat™ system to treat first flush runoff ➢ Installation of sand filters to treat parking lot runoff ➢ Installation of porous pavement ➢ Use of bio-retention for parking lot runoff sized to treat first flush ➢ Installation of water quality inlets • *Discharge Controls.* Include flow-controlling BMPs for post-development conditions that manage peak velocities, peak discharge rates, and 24-hour runoff volumes for a specific storm or storms in a manner to match or marginally increase pre-development conditions. Hydrograph timing analyses may also be performed for the design storms to assure that detention/retention facilities don't create new problems downstream by accumulating peak discharges that would normally occur in phases. These controls may include: ➢ Installation of wet detention ponds ➢ Installation of extended dry detention ponds ➢ Incorporation of bio-retention, such as artificial wetlands ➢ Installation of retention/infiltration devices (soil dependent) ➢ Use of vegetated channels ➢ Installation of porous pavement ➢ No mow zones ➢ Greenway zones ➢ Long term planning ➢ Easement acquisition

ID	Who	Status	Start	Frequency	Description
PC-2 Cont.					• *Design Manual.* Modify MSD's existing design manual to incorporate future land use condition analyses to ensure upstream development does not create hydraulic conditions that short-circuit or damage BMPs, particularly sensitive BMPs such as bio-filters, buffer strips, and wetlands.
PC-3	Anchorage Jeffersontown Prospect Shively St. Matthews County Louisville	N " " " " " "	2002 " " " " " "	Continual " " " " " "	*Built-Upon Area Reductions.* Reduction to on-site imperviousness for new development will be encouraged. The reductions could be accomplished by using one of several methods: • *Landscape Ordinance.* Landscape ordinances can require "green space" as a percent of the total property size, which directly limits imperviousness on new construction sites. • *Cluster Development.* Cluster development helps control the total imperviousness of a large development by grouping structures in "clusters" and leaving large open spaces. Combined with environmental site planning, this BMP may utilize naturally occurring wetlands and depressions for biological treatment and filtering of pollutants. • *Innovative BMPs.* Innovative BMPs can be used to treat runoff from impervious areas. An example is the use of porous pavement that allows the runoff to infiltrate through the pavement and into a sub-base that functions as a rock-filled reservoir. The stone absorbs pollutants from the water in storage.
PC-4	MSD Anchorage Jeffersontown Prospect Shively St. Matthews KTC County Louisville	N " " " " " " " "	2001 " " " " " " " "	Continual " " " " " " " "	*Source Controls.* MSD and the co-permittees will control pollutants in runoff after the termination of construction activities to the extent practicable by requiring developers to comply with a "Post Construction" checklist. The checklist may identify potential pollutant sources that will remain on-site after construction is complete. The checklist will be followed during the plan review process and may result in requirements for some or all of the following: run-on/runoff controls, covering material storage areas and fueling areas, containment for chemical storage, etc.

GOOD HOUSEKEEPING / POLLUTION PREVENTION

The components of the drainage system require routine inspections and maintenance. The proposed program addresses the collection, conveyance, and treatment features of the MS4, and the BMPs will be implemented for their maintenance over the next five years. Municipal operations, such as vehicle fueling, washing, maintenance areas, and material storage areas, should also be properly managed to prevent pollution through minimizing exposure of potential pollutants to rainfall and runoff.

ID	Who	Status	Start	Frequency	Description
GH-1	County	O	1999	Continual	*Street Maintenance.* BMPs suitable for use in construction projects, such as inlet and outfall protection and the use of silt fence to keep sediment from entering streams, will be utilized to protect storm sewers, ditches, and streams during street maintenance projects involving construction activities. Adjacent catch basins will be fitted with temporary sediment traps to provide protection.
	Anchorage	"	"	"	
	Jeffersontown	"	"	"	
	Prospect	"	"	"	
	Shively	"	"	"	
	St. Matthews	"	"	"	
	KTC	"	"	"	
	Louisville	"	"	"	
GH-2	County	O	1999	Continual	*Street Sweeping.* Street sweeping has been shown to be an effective means of keeping litter and other trash out of the storm drainage system. It will be the responsibility of each of the co-permittees to review and make changes to their existing programs and practices to improve storm water quality.
	Anchorage	"	"	"	
	Jeffersontown	"	"	"	
	Prospect	"	"	"	
	Shively	"	"	"	
	St. Matthews	"	"	"	
	KTC	"	"	"	
	Louisville	"	"	"	
GH-3	MSD	O	1999	Continual	*Catch Basin Cleaning.* Catch basin cleaning will be performed on both a scheduled and on an as-needed basis. The cleaning will occur in a manner that minimizes entry of accumulated leaves, litter, and sediment into the conveyance system.
	Anchorage	N	2000	"	
	Jeffersontown	"	"	"	
	Prospect	"	"	"	
	Shively	"	"	"	
	St. Matthews	"	"	"	
	KTC	"	"	"	

ID	Who	Status	Start	Frequency	Description
GH-4	MSD	O	1999	Continual	*Storm Sewer Cleaning.* The methods in which storm sewers are cleaned will be evaluated. This evaluation will assume that methods of pipe cleaning are utilized that will keep material from flushing into the streams. Storm sewer cleaning will be performed on a scheduled basis and as-needed.
	Anchorage	N	2000	"	
	Jeffersontown	"	"	"	
	Prospect	"	"	"	
	Shively	"	"	"	
	St. Matthews	"	"	"	
	KTC	"	"	"	
GH-5	MSD	O	1999	Continual	*Channel Maintenance.* Channel maintenance will be performed on both a scheduled and on an as-needed basis. Investigations will be conducted into the use of various environmentally sensitive methods to evaluate the soil bioengineering measures installed during the last five years. There are several methods and practices that can enhance the ecological value of streams, even in urban environments. MSD will look into these practices, evaluate results of demonstration programs and pilot studies, and incorporate the results into its design criteria manual. Additional "No Mow" Zones will be identified and monitored.
	Anchorage	N	2000	"	
	Jeffersontown	"	"	"	
	Prospect	"	"	"	
	Shively	"	"	"	
	St. Matthews	"	"	"	
	KTC	"	"	"	
GH-6	County	N	1999	Annual	*Pollution Prevention for De-icing.* The following practices can be adopted for controlling the contribution of deicing materials, such as salts, in runoff: • Calibrate salt spreading vehicles annually. • Provide cover for salt storage areas. • Provide run-on and runoff controls for salt truck loading/unloading areas. • Evaluate alternative deicing chemicals.
	Anchorage	"	"	"	
	Jeffersontown	"	"	"	
	Prospect	"	"	"	
	Shively	"	"	"	
	St. Matthews	"	"	"	
	KTC	"	"	"	
	Louisville	"	"	"	
GH-7	MSD	O	1999	Continual	*BMP Inspections.* A schedule will be established for inspections of post construction BMPs.
	Anchorage	N	2000	"	
	Jeffersontown	"	"	"	
	Prospect	"	"	"	
	Shively	"	"	"	
	St. Matthews	"	"	"	
	KTC	"	"	"	

ID	Who	Status	Start	Frequency	Description
GH-8	MSD	O	1999	Continual	*BMP Maintenance.* MSD and the co-permittees will institute regular maintenance programs for their post construction BMPs. Examples of BMP maintenance include: mowing detention facility embankments, litter removal, and leaf removal. Periodic maintenance will be performed. Items included in the periodic maintenance are sediment removal, maintenance on mechanical works, and planting.
	Anchorage	N	2000	"	
	Jeffersontown	"	"	"	
	Prospect	"	"	"	
	Shively	"	"	"	
	St. Matthews	"	"	"	
	KTC	"	"	"	
GH-9	MSD	N	1999	Annual	*Pollution Prevention for Herbicides and Pesticides.* Pollution prevention plans will be required for applicable commercial and co-permittee herbicide and pesticide applications. Pollution prevention plans may include such items as: • Application guidance • Mixing and preparation guidance • Guidance on proper disposal of used and/or waste materials • Other environmental considerations
	County	"	"	"	
	Anchorage	"	"	"	
	Jeffersontown	"	"	"	
	Prospect	"	"	"	
	Shively	"	"	"	
	St. Matthews	"	"	"	
	KTC	"	"	"	
	Louisville	"	"	"	
GH-10	MSD	O	1999	Annual	*Continuation of Existing Programs.* The co-permittees will continue to promote and provide locations for existing recycling and drop-off programs, such as household hazardous waste turn-ins, used oil turn-ins, and lawn waste disposal.
	County	"	"	"	
	Anchorage	"	"	"	
	Jeffersontown	"	"	"	
	Prospect	"	"	"	
	Shively	"	"	"	
	St. Matthews	"	"	"	
	Louisville	"	"	"	

PUBLIC EDUCATION / OUTREACH PROGRAMS

Public education and outreach programs in Louisville and Jefferson County have been very successful. The program being proposed as part of the KPDES permit reapplication includes several new initiatives and continuance/support of existing programs. The objective of this effort will be to increase public awareness of water quality issues and to promote a sense of stewardship for the streams in Jefferson County. The following activities are planned for the coming five years.

ID	Who	Status	Start	Frequency	Description
PE-1	MSD	N	1999	Annual	*Public Education Program.* MSD and the co-permittees will develop and implement a public education program. The schedule and components listed below are examples of program elements, but may be altered, depending on timeframe, cost, and effectiveness. Components of the Public Education Program will be determined during the first one to two years of the permit and implemented in the remaining years. • *Adopt-A-Stream Programs/Creek Sweeps.* There are several "grass roots" groups who have developed their own watershed- or sub-watershed-based protection programs. A common activity of these groups has been an annual "creek sweep," or clean-up day. These activities require different levels of support, including: advertising, bags for trash, refreshments for workers, and trucks to haul solid waste. These activities currently receive participation and support from the public, local businesses, and government agencies. MSD and the co-permittees will support these activities. • *Pamphlets.* Information on non-point source pollution, pollution prevention, and the programs being implemented will be disseminated through the print media. Local publications and neighborhood publications will be provided news releases, text, and photos for articles on non-point source pollution prevention, watershed management, and other programs. It is anticipated that each of the Area Teams will submit at least one article annually to the local print media. MSD will also continue to promote the ongoing programs, both watershed-specific and countywide, through its in-house publications that are distributed to the public. These publications include the *UpDate*, *Cross Currents*, the *Quarterly Report*, and the *Annual Report*. The co-permittees will promote their programs through their newsletters or other means. Suggested topics include recycling and used oil turn-in.
	Anchorage	"	"	"	
	Jeffersontown	"	"	"	
	Prospect	"	"	"	
	Shively	"	"	"	
	St. Matthews	"	"	"	

ID	Who	Status	Start	Frequency	Description
PE-1 Cont.					• *Billing Inserts.* Programmatic information and guidance that is not watershed-specific, calendars of events, and status reports for on-going projects will be provided as billing inserts. This information will reach a large number of adults and will provide concise information on initiatives underway in support of the KPDES storm water permit. Existing initiatives will be publicized, including the pesticides program, household hazardous waste turn-in, and used oil turn-in locations. • *Public Service Announcements.* Public service announcements will be provided to local radio and television media related to the KPDES storm water permit program. Short features will be produced on pollution prevention and stakeholder involvement in watershed protection. These videotapes will be provided to the local government access stations, public television, and educational television. • *Countywide Watershed/Water Quality Training Program.* A countywide training program will be developed to establish awareness of watershed and water quality issues. It will be presented annually. • *Kid's Page.* An activity page or place mats ("Kids Page") that would be used in a restaurant or in the newspaper for educational purposes. These sheets would have games for children to play that have watershed-related themes. • *Internet Server.* MSD will establish a World Wide Web Page with Internet-based information, such as project descriptions, meeting/event dates, brochures, games, and links to home pages of resources and other MS4s. Stream monitoring data will also be available. The World Wide Web Page will be updated as needed.
PE-2	MSD	O	1999	Annual	*Earth Day.* Activities will be planned for Earth Day each year highlighting the overall program. Some watershed-specific activities may also be planned. Attempts will be made to organize these activities in prominent public places in the watersheds, such as county parks.
	Anchorage	N	"	"	
	Jeffersontown	"	"	"	
	Prospect	"	"	"	
	Shively	"	"	"	
	St. Matthews	"	"	"	
	KTC	"	"	"	

ID	Who	Status	Start	Frequency	Description
PE-3	MSD	O	1999	Annual	*Litter Control.* Adopt-A-Highway/Green Mile programs provide litter and floatable control in the watersheds and help promote recognition of pollution sources and pollution prevention activities in the watershed, although not necessarily along or directly in the water. The support needed in this instance will be advertising, supplies, and solid waste removal. An educational program will be developed to target the public on alternatives for non-recyclable/non-biodegradable materials.
	Anchorage	"	"	"	
	Jeffersontown	"	"	"	
	Prospect	"	"	"	
	Shively	"	"	"	
	St. Matthews	"	"	"	
	KTC	"	"	"	
PE-4	MSD	O	1999	Annual	*Volunteer Monitoring Support.* MSD will coordinate with volunteer monitoring programs that are being initiated by others, such as Kentucky Water Watch. The coordination may include: advertising events, soliciting participation, and providing other resources, such as oversight staff, testing kits, and information from other MSD programs that might be helpful to the volunteers. The level of support may vary from program to program as needed.
PE-5	MSD	N	1999	Annual	*Internal Training.* The purpose of the internal training is to educate the staff of MSD and the co-permittees on the KPDES Permit, goals for improving water quality, and what their role is in educating the public and implementing the program. This training will be conducted by MSD and attended by the co-permittees. Each co-permittee may provide additional training.
	Anchorage	"	"	"	
	Jeffersontown	"	"	"	
	Prospect	"	"	"	
	Shively	"	"	"	
	St. Matthews	"	"	"	
	KTC	"	"	"	
	Louisville	"	"	"	

BMP EVALUATION

A performance-based evaluation of BMPs will be performed. This will include both qualitative and quantitative measures, depending on the nature of the BMP. The Year One Annual Report will establish an evaluation process for each of the five program areas. Subsequent annual reports will better define the evaluation method (performance-measure) and the results of the assessment.

MONITORING

The monitoring program that will be implemented over the five-year permit period is a combination of existing, modified, and new programs. These programs include the following:

ID	Who	Status	Start	Frequency	Description
M-1	MSD	N	1999	Once	*Wet Weather Data Collection.* A holistic wet weather monitoring program will be designed and implemented on a pilot basis. Goals of this effort include the assessment of specific wet weather impacts. It is anticipated this effort will provide the data necessary to begin prioritizing resources to target those sources which have the most significant impact on stream water quality.
M-2	MSD Anchorage Jeffersontown Prospect Shively St. Matthews	N " " " " "	1999 " " " " "	Quarterly " " " " "	*Land Use Characterization.* Seasonal storm event samples will be collected and analyzed to create a database that characterizes storm water/non-point source runoff quality from discrete land uses. These samples will be collected at sites represented by predominantly homogenous land uses in the contributing drainage area.
M-3	MSD Anchorage Jeffersontown Prospect Shively St. Matthews	O N " " " "	1999 " " " " "	Quarterly " " " " "	*Ambient Stream Data Collection.* Data will continue to be collected that identifies water quality trends in Jefferson County. This program includes the collection and analysis of physical, biological, and chemical samples and flow data at selected sites throughout Jefferson County. This program will be performed throughout the five years of the permit.
M-4	MSD	O	1999	Quarterly	*Volunteer Monitoring Coordination.* MSD staff will determine how to utilize information generated by local volunteer monitoring programs, and will contribute staff time and resources to assist with these programs

REPORTING

An annual report on the status of the KPDES storm water discharge permit program will be produced to highlight the activities of the previous twelve-month period.

ID	Who	Status	Start	Frequency	Description
R-1	MSD Anchorage Jeffersontown Prospect Shively St. Matthews KTC	O " " " " " "	1999 " " " " " "	Annual " " " " " "	*Annual Report.* There will be a single report that covers the KPDES permit activities in Jefferson County. The report format will be watershed-based and will be provided to the Division of Water as an ArcView GIS application or in HTML format with accompanying ArcView GIS. The report will be submitted in November of each year. Three new features of the report will be: • A financial section will be provided in the Annual Report, documenting the annual cost of the storm water program for MSD and the co-permittees. • An annual assessment of the performance of the various elements of the storm water management program at reducing non-point source pollution will be provided in the report. • The MS4 KPDES Annual Report may be combined with the Combined Sewer Overflow (CSO) Annual Report and Sanitary Sewer Overflow (SSO) reporting and will be submitted in November of each year. The KPDES and CSO permits will not be combined at this time.
R-2	MSD Anchorage Jeffersontown Prospect Shively St. Matthews KTC	O " " " " " "	1999 " " " " " "	Annual " " " " " "	*ArcView Application.* Monitoring data will be provided in the Annual Report as a series of databases in the ArcView application. Data can be viewed or plotted by selecting the appropriate theme and then selecting a water quality data point. Similarly, the results of the student outfall program can be viewed in this application. The outfall data includes color-coding of outfall points to indicate whether or not the outfall was wet or dry. Clicking on the outfall with the outfall program theme selected pops up a data sheet with the information on the outfall screening. Digital photographs are provided for the contaminated outfalls. Information on pollutant sources is also provided, including the locations of wastewater treatment facilities, KPDES permit holders, businesses storing hazardous substances on-site, CSO, and SSO. Information on each source is provided.
R-3	MSD	N	1999	biennial or 2 times during next 5 years	*Water Quality Report.* A layperson's report will be written two times during the permit period. This report will include topics such as: what is water quality, how is it measured, what were the major impacts to Jefferson County streams, and what can each person do to improve water quality, etc.
R-4	MSD	N	1999	Annual	*Data Report.* This report will provide water quality data from the ambient monitoring sites. There will be an annual update for this report. It will be available digitally and eventually will be available on MSD's web site.

ID	Who	Status	Start	Frequency	Description
R-5	MSD	N	1999	Once	*Synthesis Report.* This report will analyze and interpret physical and chemical data from the ambient sites from 1988 through 1997. This report will include comparisons with statewide data and document how stream systems in the County have changed through time. In addition, recommendations for future management will be made.

JAMES E. BICKFORD
SECRETARY

PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
14 REILLY RD
FRANKFORT KY 40601

MAR 3 2000

Re: Response to Comments
KPDES No.: KYS000001
Jefferson County, Kentucky

Dear Commentor:

Comments concerning the above-referenced draft permit have been reviewed and responses prepared in accordance with Kentucky Pollutant Discharge Elimination System (KPDES) regulation 401 KAR 5:075, Section 12. The comments have been briefly described below and our responses to those comments follow:

COMMENT 1: The soil and erosion control ordinance must be adopted.

RESPONSE 1: This has been a point of concern for the Division, expressed to MSD for some time now. It is our understanding the ordinance is in final form and ready for approval by the interested parties. This is the highest priority item of concern by the Division of the MSD storm water program.

COMMENT 2: The permit co-applicants are not effectively participating in the program and producing results.

RESPONSE 2: From the beginning, the Division has considered MSD as the lead agency in implementing the municipal separate storm sewer system (MS4) program for the affected geographical area. In the interest of a mutually cooperative participation, by all parties involved, the Division has chosen to refrain from regulatory intervention to this point as far as specific details with the co-applicants. This could change in the future, should it become necessary after consultation with MSD personnel, to ensure progress of the overall program implementation. It has been an educational process for the co-permittees to understand their responsibilities and how they all fit together in the watershed concept. Again, due to the complex nature of this program, the evolution takes time. The annual report includes the various program elements and the status of the co-permittee contribution. The Division will continue to monitor the progress and be available for assistance, if needed. Specific attention will be given to the Kentucky Transportation Cabinet and its responsibilities under the MS4 program.

COMMENT 3: There is a concern about the lack of watershed master plans.

RESPONSE 3: The watershed master plans are forthcoming. The Division has not demanded any schedule for development of these plans. The watershed concept is a relatively new concept to take an overall look at stream impacts from various sources. The determination of the Total Maximum Daily Load (TMDL) for pollutants of concern will impact the final plan. (See Comment/Response 4)

COMMENT 4: There is a concern about the determination of Total Maximum Daily Load (TMDL), particularly for the Middle and South Forks of Beargrass Creek.

RESPONSE 4: The Division has established a watershed framework to systematically develop TMDL allocation for the Commonwealth of Kentucky. Beargrass Creek is part of the Salt/Licking Basin Management Unit scheduled for TMDL development in 2002/2003. The Division is the agency responsible for the TMDL development, but will definitely coordinate with MSD during the study. Once the study is completed, point source storm water data, combined sewer overflow data, separate sanitary sewer overflow data, treatment plant point source data, and non-point source data will have to be reviewed, impacts prioritized, and resources allocated to effectively address water quality problems in the watershed. Our standard wasteload allocation procedure used for wastewater point source discharges will not be appropriate for wet weather point sources and non-point sources. The Strategic Monitoring Plan for the Salt/Licking Basin Management Unit is available from the Division.

COMMENT 5: The BMP program is insufficient for the magnitude of the problem.

RESPONSE 5: The phrase "magnitude of the problem" is critical in addressing the storm water situation and indeed the reason the BMP program may appear insufficient at this time. The MS4 storm water program is designed to address water quality impacts and not primarily quantity or flooding problems. However, particularly with the general public, when the subject of storm water arises, it's the flooding that is most often the primary concern. While Federal and State regulations address BMP for new construction development, incorporation of BMP for existing development is a gray area. The implementation then becomes a local site-specific responsibility relative to land use and effective runoff controls. Again, any serious problem usually is quantity in nature and results after the fact with any BMP controls having to be retrofitted, not only to relieve the existing flooding problems, but address potential drainage contributions from future contiguous development in the watershed. The water quality impact becomes a secondary rather than primary concern when compared with the quantity impact. An effective BMP program will require a coordinated effort between MSD, co-permittees, planning and zoning, and the developers under the State general permit for new construction sites.

COMMENT 6: The effectiveness of some of the detention basins used by MSD is questioned and a monitoring program needs to be employed to document the performance of the control structures.

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STEVEN L. BESHEAR
GOVERNOR

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
200 FAIR OAKS LANE
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LEONARD K. PETERS
SECRETARY

FACT SHEET

KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM
PERMIT TO DISCHARGE FROM A LARGE MUNICIPAL SEPARATE STORM SEWER SYSTEM INTO WATERS OF THE COMMONWEALTH

KPDES No.: KYS000001 **Permit Writer:** Abigail Rains **Date:** June 7, 2011
AI No.: 8235

1. **SYNOPSIS OF APPLICATION**

a. Name and Address of Applicants

Louisville and Jefferson County
Metropolitan Sewer District
700 West Liberty Street
Louisville, Kentucky 40203-1911

Louisville - Jefferson County
Metropolitan Government
600 Metro Hall
Louisville, Kentucky 40202

City of Shively
3920 Dixie Highway
Shively, Kentucky 40216

City of St. Matthews
3941 Grandview Avenue
Louisville, Kentucky 40207

City of Jeffersontown
10146 Watterson Trail
Jeffersontown, Kentucky 40299

City of Anchorage
City Hall, 1306 Evergreen Road
Anchorage, Kentucky 40223

b. Description of Applicant's Operation

The applicant operates a large municipal separate storm sewer system through such controls as legal authority, source identification, discharge characterization, management program, assessment of controls, and fiscal analysis.

2. **PERMIT DURATION**

Five (5) years

3. **THE ADMINISTRATIVE RECORD**

The Administrative Record, including application, draft permit, fact sheet, public notice, comments received, and additional information is available for review at the Division of Water at 200 Fair Oaks Lane, Frankfort, Kentucky 40601.

4. **CONTACT**

Abigail Rains
KPDES Permit Writer
(502) 564-8158, extension 4891

5. **ANTIDEGRADATION**

The purpose of Kentucky's Water Quality Standards (401 KAR 10:026 through 401 KAR 10:031) is to safeguard the surface waters of the Commonwealth for their designated uses, to prevent the creation of new pollution of these waters, and to abate existing pollution. Kentucky's Antidegradation Policy regulation requires that "where the quality of surface waters exceeds that necessary to support propagation of fish, shellfish, wildlife and recreation in and on the water, that quality shall be maintained and protected unless the cabinet finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the cabinet's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. With regards to point source discharges, water quality shall be maintained and protected in high quality waters according to the procedures specified in 401 KAR 10:030, Section 1(2)(b) or (3)(b)," Kentucky's Antidegradation Implementation Policy regulation.

401 KAR 10:030 Section 1(3)(b)d. states that for an individual MS4 permit issued pursuant to 401 KAR 5:050 through 5:080, two options may be exercised: 1) if the activity permitted by the MS4 permit may result in a lowering of water quality, the cabinet shall describe in the Fact Sheet how the MS4 permit complies with the alternatives analysis and socioeconomic demonstration requirements of the antidegradation policy implementation regulation; or 2) if the requirements and conditions in the MS4 permit will prevent a lowering of water quality, the cabinet shall describe in the Fact Sheet that the MS4 permit complies with the antidegradation policy established in 401 KAR 10:029 Section 1.

The Division of Water has determined that for new or expanded discharges from the MS4 systems covered under this individual MS4 permit the antidegradation requirements of 401 KAR 10:029 Section 1 are satisfied; the Division of Water has concluded that the requirements and conditions of this MS4 permit are sufficiently protective to prevent lowering of water quality in high quality and exceptional waters that exist in Jefferson County for new or expanded discharges occurring from the MS4. Because of the protections afforded by this and other related permits and controls, the division has concluded that no lowering of water quality will occur as a result of runoff from the MS4 communities covered by this permit.

The Division of Water recognizes that MS4 permits are subject to the standard of "maximum extent practicable" (MEP) which evolves for MS4 communities over time. Successive issuances of MS4 permits reflect the improvements in technologies and the communities' ability to implement the MS4 program. This permit, the requirements within which define what the Division of Water considers MEP for these MS4 communities, includes several new requirements that will result in improved quality of stormwater runoff and water quality. These incremental improvements in the permit/MEP are outlined below.

Public Education, Outreach, Participation and Learning Experiences (PEOPLE)

- MSD is required to attend and participate in City Council meetings to address resident's concerns and questions.
- MSD is required to provide speakers for various community stakeholder events, at least six per year, that could benefit from environmental stormwater information.
- MSD is required to perform a statistical survey to gauge the population's knowledge of stormwater quality issues and establish a baseline to assess the changes in individual behaviors, thereby measuring outreach program effectiveness. The permittee is required to utilize the survey results to focus and prioritize PEOPLE activities.
- MSD is required to attend Homebuilders Association land development committee meetings to address concerns and comments from the local homebuilder professionals and provide information regarding changes in procedures, checklist, regulations, etc.
- MSD shall implement series of projects aimed at demonstrating the

feasibility and effectiveness of green infrastructure including, but not limited to rain gardens, green roofs, pervious pavement, bio-swales and infiltration. MSD is required to prioritize, select and implement projects to support a variety of residential, non-residential, professional and non-professional audiences in MSD and co-permittee areas. Where feasible MSD is required collaborate and/or cooperate with local government agencies, schools, co-permittees and/or private properties with significant use and exposure to the general public.

- MSD is required to develop a web site-based system to notify the public and affected stakeholders of proposed major program changes that will significantly impact stormwater runoff quality, negatively or positively. The public is to be given the opportunity to informally comment on proposed changes and these comments will be summarized and made available on the website.

Illicit Discharge Detection and Elimination (IDDE)

- This MS4 permit requires that the IDDE program be initiated throughout the permitted area of Jefferson County (cf. previously the IDDE program extended only to Louisville proper).
- MSD is required to conduct dry-weather screenings of representative outfalls. The recommended level of effort is twenty percent (20%) of the major outfalls per year. However, all the major outfalls shall be addressed within the permit term.
- MSD is required to conduct dry-weather screenings at ninety percent (90%) of large industrial outfalls of industrial facilities once every two years.
- After the initial follow-up to insure the illicit discharge has been mitigated, MSD is required to re-evaluate outfalls that were previously found to have had contaminated discharges to determine the current status of those outfalls. (At least 25% of suspect outfalls each year).
- MSD is required to continue to maintain the GIS Louisville Jefferson County Information Center (LOJIC) layers constituting its storm sewer system map, showing the location of all known major outfalls, and the names and location of all waters of the Commonwealth that receive discharges from those outfalls. (Outfalls are now on GIS system; this was not required in the previous permit.)

Industrial Stormwater Program

An "Industrial Stormwater Program" section, which is entirely new to this issuance of the MSD MS4 permit has been added and includes the following requirements.

- MSD is required to develop and implement an industrial stormwater program to control discharges of pollution to the MS4 from industrial and high-risk commercial facilities.
- MSD is required to develop an inventory of all potential industrial and commercial sites/sources that could contribute substantial pollutant load to the MS4.
- MSD is required to identify risk factors to define facilities as "High Risk", "Moderate Risk" and "Low Risk" which is to be included in the Annual Report.
- MSD is required to compare the datasets for local Approved Hazardous Materials (spill) Prevention Control (HMPC) Plan Facilities to the facility data from local and state environmental and emergency response agencies to address the completeness and accuracy of High Risk Industrial Facilities identification.
- MSD is required to update the list of High Risk Industrial Facilities (HRIFs) at least twice over the permit term, to account for the most recently available North American Industry Classification System (NAICS), Standard Industrial Classification (SIC) codes, Toxic Release Inventory (TRI) data, MSD's HMPC data and MSD's pretreatment program data with the goal of establishing a tiered list of industries to support priorities in MSD's industrial facility inspection program.
- MSD is required to inspect high priority facilities at least once every

three (3) years and moderate risk facilities at least once every five (5) years.

- MSD is required to mandate that High Risk industrial and commercial facilities select, install, implement, and maintain control measures that promote prevention and source control for discharge of applicable pollutants of concern.
- MSD is required to develop criteria or procedures for site inspections and enforcement including criteria to address how the MS4 will use enforcement authorities to ensure compliance with the industrial program requirements. The permittee shall enforce the procedures outlined in Section 95.11 of the Louisville Metro Code of Ordinances relating to hazardous materials.
- MSD is required to develop and distribute outreach materials (brochure, fact sheets, etc.) to HMPC Facilities and other commercial operations of concern to promote illicit discharge elimination awareness. Tracking of distribution shall be reported in the annual report.

Construction Site Storm Water Runoff Control

- MSD is required to assess existing ordinances and regulations to identify changes needed to account for changes in standard of care (*cf.* KDOW General Construction Permit KYR10), changes in technology, changes to development management process and related program needs in satisfaction 40 CFR 122.26(b)(15)(i) for construction activities that result in a land disturbance of greater than or equal to one acre and construction activity disturbing less than one acre that is part of a larger common plan of development that would disturb one acre or more.
- MSD is required to conduct construction stormwater inspections monthly or after 0.5 inch rain events and to conduct less frequent MSD oversight inspections of at least 90% of active sites. (cf. The previous permit did not specify inspection schedules.)
- MSD is required to institute procedures for receiving Stormwater Pollution Prevention Plans (SWPPPs) for qualifying construction sites within six months of the effective date of the permit.
- New construction activities, the initial source of most new or expanded discharges, are addressed by both state and local stormwater construction permits. These new construction sites are subject to antidegradation consideration under the stormwater construction general permit (KYR10) and antidegradation review under an individual stormwater construction and other applicable KPDES permits. This MS4 permit requires, at a minimum, that the local stormwater construction permit program must be as protective as the state general permit for Stormwater Construction Runoff (KYR10).
- This MS4 permit requires the development and adoption by ordinance or other regulatory mechanism of an on-site stormwater runoff treatment standard for all new development and redevelopment projects. The local standard must require, in combination or alone, water-quality control measures that are designed, built and maintained to infiltrate, evapo-transpire, harvest and re-use stormwater runoff. The minimum standard must be based on the equivalent runoff produced from an 80^{th} percentile precipitation event (e.g. ~0.75 inches).

Good Housekeeping and Pollution Prevention for Municipal Operations

The following are new requirements that specify details of the Good Housekeeping and Pollution Prevention for Municipal Operations program:

- Maintenance of public streets, roads and highways, including pollutants discharged as a result of deicing application and storage practices must implement alternative measures that might benefit stormwater quality from runoff from roadway and salt bin storage locations and will not affect public safety.
- MSD is required to certify MSD employees applying pesticides under the Kentucky Dept. of Agriculture's FIFRA pesticide management registration and certification program. MSD is required to develop and maintain a list of pesticides used and stored, including storage locations. (cf. the previous permit did not require pesticide management registration and

certifications).

- MSD is required to utilize the facility SWPPP Committee to perform routine training of key SWPPP issues regarding at least three (3) SWPPP issues annually and summarize training and attendance for the annual report.

The requirements in this permit represent the Division of Water's determination of MEP for the Louisville MSD and Jefferson County communities covered by this permit. This includes MEP for public education and outreach, IDDE, Industrial Stormwater program, Stormwater Construction, Post-construction Requirements, and Good Housekeeping and Pollution Prevention. The Division of Water recognizes that MS4 permits and MEP evolve and improve over successive iterations of said permits. This permit represents a significant improvement in MEP and MS4 stormwater control, particularly in the areas of stormwater construction and post-construction runoff.

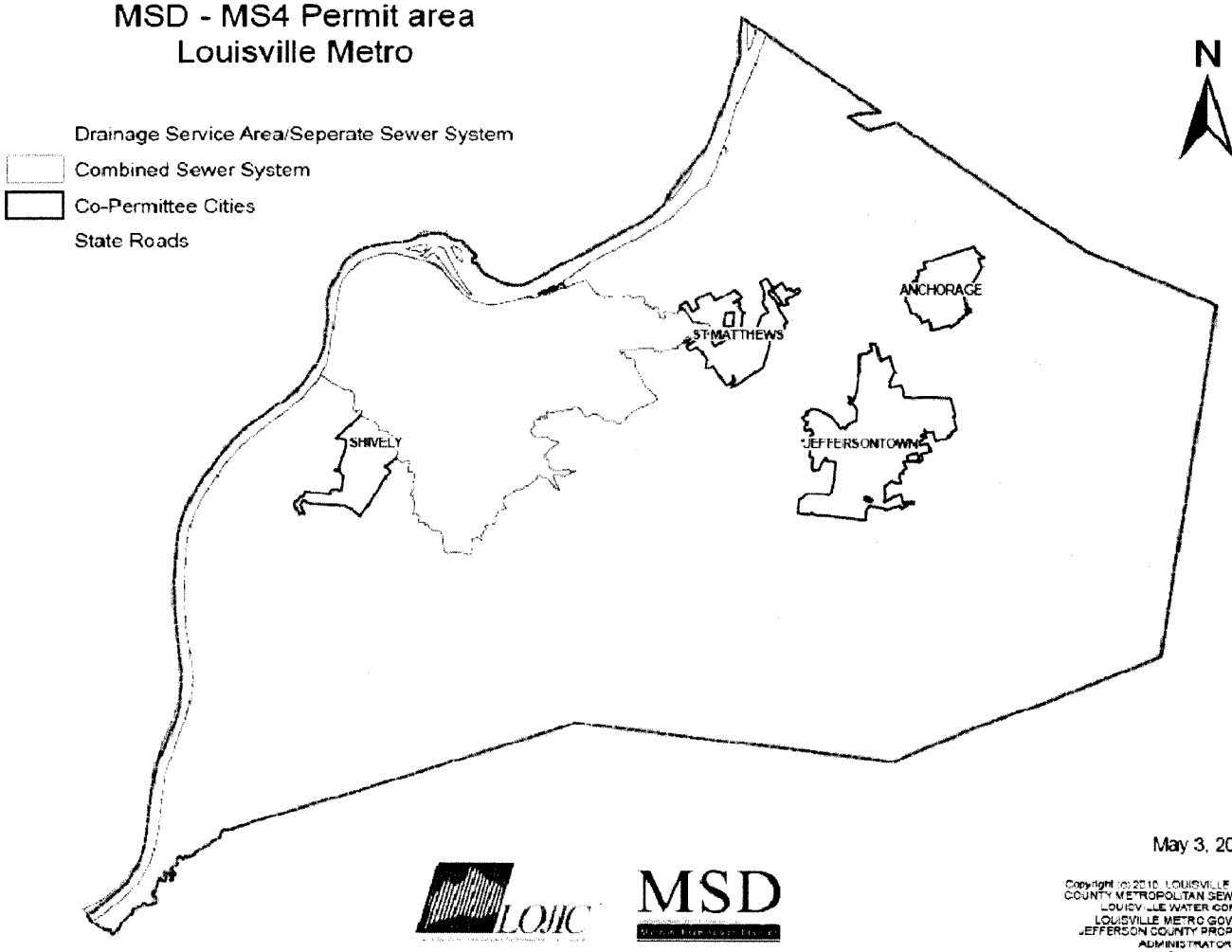
6. BMPs and TOTAL MAXIMUM DAILY LOADS (TMDLs)

For waters with an approved or established TMDL, the permittee shall evaluate its Best Management Practices in the SWQMP with respect to MS4 discharges for pollutants of concern to impaired waterbodies listed in the Division of Water publication entitled, "2008 Integrated Report to Congress on the Condition of Water Resources in Kentucky Volume I. 305(b) Report", and its successor publications, found at www.water.ky.gov/sw/swmonitor/305b, to assess their effectiveness in achieving pollutant reductions in impaired water bodies. The evaluation of BMPs may be conducted on a watershed basis or on a point source basis. A list of approved or established TMDLs can be found at http://www.water.ky.gov/sw/tmdl/Approved+TMDLs.htm. Upon completion of the evaluation, in watersheds with approved or established TMDL(s), the SWQMP BMPs will be designed to the Maximum Extent Practicable and selected to address the Waste Load Allocation based upon the 2002 Memo from EPA which states in light of 33 U.S.C. § 1342 (p) (3) (B) (iii), EPA recommends that for NPDES-regulated municipal and small construction stormwater discharges should be expressed as BMPs or other similar requirements, rather than numeric effluent limitations. Based upon the evaluation completion, as necessary, the permittee shall modify the SWQMP, per the routine annual updates described in II.C, to improve the effectiveness of the BMPs.

7. PUBLIC NOTICE INFORMATION

Please refer to the attached Public Notice for details regarding the procedures for a final permit decision, deadline for comments, and other information required by 401 KAR 5:075, Section 4(2)(e).

MSD - MS4 Permit area
Louisville Metro



May 3, 2010

Map Prepared by MSD GIS Services and Records

KPDES

KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

PERMIT

Permit No.: KYS000001
AI No.: 8235

AUTHORIZATION TO DISCHARGE UNDER THE KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

Pursuant to Authority in KRS 224,

Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville, Kentucky 40203-1911

Louisville - Jefferson County Metropolitan Government
600 Metro Hall
Louisville, Kentucky 40202

City of Shively
3920 Dixie Highway
Shively, Kentucky 40216

City of St. Matthews
3941 Grandview Avenue
Louisville, Kentucky 40207

City of Jeffersontown
10146 Watterson Trail
Jeffersontown, Kentucky 40299

City of Anchorage
City Hall, 1306 Evergreen Road
Anchorage, Kentucky 40223

is authorized to discharge stormwater runoff from a large municipal separate storm sewer system (MS4) to receiving waters of the Commonwealth in accordance with requirements and other conditions set forth in PARTS I, II, III, and IV hereof. The permit consists of this cover sheet, a table of contents, and PART I 3 pages, PART II 61 pages, PART III 3 pages, and PART IV 1 page.

This permit shall become effective on August 1, 2011.

This permit and the authorization to discharge shall expire at midnight, July 31, 2016.

June 7, 2011
Date Signed

Sandra L. Gruzesky, Director
Division of Water

TABLE OF CONTENTS

PART I. APPLICABILITY

A. PERMIT COVERAGE AREA AND RESPONSIBILITIES

1. Permit Coverage Area

This permit applies to Louisville-Jefferson County Metropolitan Sewer District's and its co-permittee's municipal separate storm sewer system (MS4) conveyances and outfalls to the waters of the Commonwealth throughout Jefferson County, Kentucky due to Louisville's status as a merged urban-county government, with exception for the combined sewer system area cover by a separate KPDES permit. The following programs do not apply outside "Urban Areas" as defined in the SWQMP: Illicit Discharge Detection and Elimination (except as associated with the Hazardous Material Spill Prevention Control industrial sites). The following parties are subject to the limits and conditions of the permit.

Permittee: Louisville-Jefferson County Metropolitan Sewer District (MSD)

Co-permittees: Louisville Metropolitan Government
City of Shively
City of St. Matthews
City of Jeffersontown
City of Anchorage

2. Responsibilities

The following serves as an outline of principles for the establishment of an inter-local agreement and the identification of activities provided MSD (paragraph 1) for which the co-permittees will provide applicable compensation to MSD. In the absence of an inter-local agreement, it shall be assumed that each co-permittee shall be responsible for the full duties (including those in paragraph 1) and responsibilities enumerated in the MS4 permit tables for their respective communities/departments.

1. In carrying out the obligations established and set forth in the MS4 permit, MSD has the sole responsibility for the following duties and obligations on a countywide basis on behalf of the co-permittees:

   - Construction oversight including plan review and site inspection; Administration of the Erosion Prevention and Sediment Control Ordinance and the Floodplain Management Ordinance;
   - Hazardous material plans and inspections for qualifying industrial and commercial properties;
   - Administration of the Hazardous Materials Ordinance;
   - Monitoring program and related laboratory analysis;
   - Investigation and enforcement upon potential illicit discharges through Administration of applicable sections of the Wastewater & Stormwater Discharge Regulations;
   - Annual compliance demonstration report preparation for MSD activities and collection of co-permittee portions; and
   - Education and outreach to the general Louisville Metro area. MSD will lead selected specific elements including green infrastructure outreach and education efforts. MSD will provide opportunity for input from co-permittees.

2. In carrying out the obligations established and set forth in the MS4 permit, the Co-permittee has the sole responsibility for the following duties and obligations within its jurisdictional boundaries:

- Construction oversight in addition to that provided through Louisville MSD;
- Drainage system and outfall mapping;
- Implement education and outreach at the applicable levels of neighborhood and local community that compliment the education and outreach provided by MSD tailored to local waterbodies pollutants of concern;
- Drainage system operation and maintenance;
- Inspection, operation, maintenance and/or applicable certification that permanent (also known as post-construction) water quality devices, controls, and management practices are operating effectively;
- Road maintenance including snow and ice removal related stormwater management activities;
- Fleet and facility stormwater pollution prevention plans and their implementation;
- Report and refer potential illicit discharges observations by municipal employees or other reports from residents to MSD for investigation and potential enforcement;
- Preparation and timely submittal of annual compliance demonstration report to MSD according to agreed upon formats and standards; and
- Louisville Metropolitan Government has sole responsibility for administration of other codes and ordinances including, but not limited to, solid waste management, animal control and land development

B. AUTHORIZED DISCHARGES

The permittees identified in Section A of this Part are authorized to discharge stormwater runoff from its MS4 to waters of the Commonwealth in accordance with requirements and other conditions set forth in this Section.

1. Limitations

The following discharges are not authorized by this permit:

a. Discharges of non-stormwater, except where such discharges are in compliance with a separate KPDES permit (or the discharger has applied for such a permit) or where those discharges have been determined not to represent significant sources of pollution, consistent with state and federal regulations; and

b. Discharges of materials resulting from a spill, except emergency discharges required to prevent imminent threat to human health or to prevent severe property damage, provided reasonable and prudent measures have been taken to minimize the impact of the discharges.

2. Cross-Connection between Sanitary Sewers and Storm Sewer/MS4 Prohibited

This permit shall not be construed to authorize the discharge of sanitary wastewater through cross connections or to authorize other illicit discharges through the Municipal Separate Storm Sewer System, except as provided in 401 KAR 5:065 (1)(b)(13).

3. Effluent Limitations

The effluent limit requirements of this permit are narrative. The permittee is

required to develop, implement, enforce and update, as needed, a Stormwater Quality Management Plan (SWQMP) which shall include controls intended to reduce the discharge of pollutants from its MS4 conveyances consistent with 40 CFR 122.34.

PART II. STORM WATER QUALITY MANAGEMENT PROGRAM

The permittee is required to develop, implement and enforce a Stormwater Quality Management Plan (SWQMP) which shall include controls intended to reduce the discharge of pollutants from its MS4 conveyances consistent with Section 402(p) of the Clean Water Act. These requirements shall be met using controls which may consist of a combination of best management practices (BMPs), control techniques and systems, design and engineering methods, public participation and education, and other appropriate provisions designed to limit the discharge of pollutants from the MS4 conveyances and which are environmentally beneficial and technically and economically feasible. The tables and requirements included in this part of the permit represent Maximum Extent Practicable (MEP).

A. LEGAL AUTHORITY

The permittee shall ensure legal authority to control discharges to and from those portions of the MS4 over which it has jurisdiction. This legal authority may be a combination of regulation, statute, ordinance, permit, contract, order, or inter-jurisdictional agreements between permittees with adequate existing legal authority to accomplish items 1-5 below:

1. To control the contribution of pollutants to the MS4 by stormwater discharges associated with industrial activity and the quality of stormwater discharged from sites of Industrial Activity;

2. To prohibit illicit discharges to the MS4;

3. To control the discharge of spills and the dumping or disposal of materials other than stormwater (e.g. industrial and commercial wastes, trash, used motor vehicle fluids, leaf litter, grass clippings, animal wastes, etc.) into the MS4;

4. To require compliance with conditions in regulation, ordinances, permits, contracts or orders; and,

5. To carry out all inspection, surveillance and monitoring procedures necessary to determine compliance and noncompliance with permit conditions including the prohibition on illicit discharges to the municipal separate storm sewer.

B. STORM WATER QUALITY MANAGEMENT PROGRAM

The stormwater quality management program (SWQMP) is an integral part of the overall watershed management plan, per 40 CFR 122.26(d)(2)(IV), which includes non-point sources, wastewater treatment point sources, and combined sewer overflow point sources. A comprehensive wet weather plan utilizing an integrated approach for prioritization and implementation is necessary to adequately address the watershed needs. Implementation of a program to effectively reduce pollutants (including floatables) in discharges from municipal separate storm sewers must include program elements that address public education, outreach, participation, and learning experiences, illicit discharge detection and elimination, construction site runoff control, post construction stormwater management, industrial monitoring and control, and good housekeeping and pollution prevention in municipal operations.

1. Public Education, Outreach, Participation and Learning Experiences

   a. Continue the implementation and expansion of the public education program and conduct public outreach activities in the community that focus on impacts from stormwater discharges to water bodies and the steps that the public can take to reduce pollutants in stormwater runoff, per applicable state and federal requirements.

   b. This measure includes continued compliance with state and local public notice requirements when implementing a public involvement/participation program. Activities may include representation on local stormwater management work groups, public hearings, education for volunteers

assisting with program coordination and monitoring efforts, per applicable state and federal regulations.

Compliance with these terms is achieved by implementing the program elements, as shown in Public Education, Outreach, Participation, and Learning Experiences (PEOPLE) Tables in Section F of this Part, unless inconsistent with other provisions of this permit.

2. Illicit Discharge Detection and Elimination

a. Develop, if not already completed, implement, and enforce a program to detect and eliminate illicit discharges, that includes field screening such as dry weather screening and dry weather screening at industrial outfalls as described in the tables in Section F.;

b. Develop, if not already completed, a storm sewer system map, showing the location of all known major outfalls, and the names and location of all waters of the Commonwealth that receive discharges from those outfalls;

c. The permittee shall continue to effectively prohibit, through ordinance or other regulatory mechanism, non-stormwater discharges into the separate storm sewer system, define allowable non-stormwater discharges, and implement appropriate enforcement procedures and actions;

d. Develop, if not already completed, and implement a plan to detect and address non-stormwater discharges, including illegal dumping, to the MS4 system;

e. Continue to inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste; and

f. If in the course of implementing the SWQMP it is demonstrated that at any location sanitary sewer lines exfiltrate and such exfiltration migrates to the Municipal Separate Storm Sewer System, the permittee shall continue to promptly evaluate, prepare and implement a response plan to correct the sanitary sewer exfiltration problem.

Compliance with these terms is achieved by implementing the program elements, as shown in Illicit Discharge Detection and Elimination (IDDE) Tables in Section F of this Part, unless inconsistent with other provisions of this permit.

3. Industrial Stormwater Program

a. Develop, if not already completed, and implement an industrial stormwater program to control discharges of pollution to the MS4 from industrial and high-risk commercial facilities.

b. Develop, if not already completed, an inventory of all potential industrial and commercial sites/sources that could contribute substantial pollutant load to the MS4. This inventory shall include the name and address of the facility, contact person, and type of industry or commercial activities. This inventory shall be updated annually at a minimum and be made available to the Division of Water upon request.

c. The permittee shall identify Risk Factors to define facilities as "High Risk", "Moderate Risk" and "Low Risk". This identification of facilities shall be completed and submitted with the Annual Report of Permit Year one.

d. The permittee shall compare the datasets for local Approved Hazardous Materials (spill) Prevention and Controls (HMPC) Plan

facilities to the publicly available facility data from local and state environmental and emergency response agencies to address the completeness and accuracy of High Risk Industrial Facilities (HRIFs) identification.

e. The permittee shall update the list of HRIFs at least twice over the permit term, to account for the most recently available North American Industry Classification System (NAICS), Standard Industrial Classification (SIC) codes, Toxic Release Inventory (TRI) data, MSD's HMPC data and MSD's pretreatment program data with the goal of establishing a tiered list of industries to support priorities in MSD's industrial facility inspection program.

f. Starting in Permit Year two (2), and based on the results of the updated HRIF assessment, the permittee shall inspect high priority facilities at least once every three (3) years and moderate risk facilities at least once every five (5) years.

g. The permittee shall require the High Risk industrial and commercial facilities to select, install, implement, and maintain control measures that promote prevention and source control for discharge of applicable pollutants of concern. This requirement may be addressed through the HMPC Plan and/or federal programs such as Spill Prevention, Control and Countermeasure (SPCC) Plan and/or the Groundwater Protection Plan (GPP) that are already implemented at the industrial and commercial facilities. Starting in Permit Year two (2), the Permittee shall inspect the high-risk industrial and commercial facilities on a prioritized frequency to ensure compliance with this measure, summarizing inspections performed annually.

h. Within six months of the effective date of the permit, the permittee shall develop criteria or procedures for site inspections and enforcement including criteria to address how the MS4 will use enforcement authorities to ensure compliance with the industrial program requirements. The permittee shall enforce the procedures outlined in Section 95.11 of the Louisville Metro Code of Ordinances relating to hazardous materials.

i. Starting in Permit Year two (2), the permittee shall develop and distribute outreach materials (brochure, fact sheets, etc.) to HMPC Facilities and other commercial operations of concern to promote illicit discharge elimination awareness. Tracking of distribution shall be reported in the annual report.

Compliance with these terms is achieved by implementing the program elements, as shown in Industrial Program Tables in Section F of this Part, unless inconsistent with other provisions of this permit.

4. Construction Site Storm Water Runoff Control

a. Develop, if not completed, implement, and enforce a program to reduce pollutants in any stormwater runoff to the MS4 from Active Construction Sites.

b. The program must include the development and implementation of, at a minimum:

(i) Requirements for construction site operators to implement appropriate erosion and sediment control best management practices (BMPs) that, at a minimum, shall be as protective as Kentucky's General Stormwater Permit for Construction Sites (KYR100000);

(ii) An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance;

(iii) Requirements for construction site operators to implement appropriate erosion and sediment control best management practices (BMP);

(iv) Procedures for site plan review which incorporate consideration of potential water quality impacts with the procedures outlined in Section 159.02 of the Louisville/Jefferson County Erosion

Prevention and Sediment Control Ordinance to assess whether the plan includes measures that address potential water quality impacts from construction prior to authorization of land disturbance;

(v) Procedures for receipt and consideration of information submitted by the public through regular customer service communications;

(vi) Develop and implement criteria and procedures for site inspection and enforcement including a required effort for inspections being ninety percent (90) of active construction sites disturbing one acre or more and less than an one acre if part of a larger common plan of development shall be inspected monthly or after 0.5 inch rain events;

(vii) A requirement to implement enforcement procedures outlined in Section 159.05 of the Louisville/Jefferson County Erosion Prevention and Sediment Control Ordinance, including an enforcement response plan;

(viii) Develop and maintain an inventory of all active public and private construction sites that result in a total land disturbance of greater than or equal to one acre and less than one acre that is part of a larger common plan of development. Inventory should include the project's name, address, contact person, inspection dates, and any enforcement actions; and

(ix) A requirement that discharges from construction sites to high quality waters will protect existing in-stream water uses consistent with Kentucky General Stormwater Permit for Construction Sites (KYR100000).

Compliance with these terms is achieved by implementing the program elements, as shown in Construction Site Stormwater Runoff Controls Tables in Section F of this Part, unless inconsistent with other provisions of this permit.

5. Post-Construction Storm Water Management in New Development and Redevelopment

a. Develop, if not completed, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development. The program must ensure that controls are in place that would prevent or minimize pollutant loads from post-construction discharges to the MS4s.

b. Develop, if not completed, and implement post construction stormwater pollution control strategies, which include structural and/or non-structural best management practices (BMPs) to the maximum extent practicable.

c. Continue to use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects.

d. Within 12 months of the effective date of this permit, develop and submit to the Division of Water, an on-site stormwater runoff quality treatment standard, to be adopted by ordinance or other regulatory mechanism for

all new development and redevelopment projects. The proposed local standard will require, in combination or alone, management measures that are designed, built and maintained to infiltrate, evapo-transpire, harvest and reuse stormwater runoff. The permittee shall develop a locally derived water-quality treatment standard that requires new development projects to implement controls to manage runoff through water-quality control measures. The standard shall be based, at a minimum, on an analysis of precipitation records to determine the equivalent surface depth of runoff (e.g. ~0.75 inches) produced from an 80^{th} percentile precipitation event.

e. The permittee shall conduct site plan reviews through procedures for reviewing development plans for compliance with stormwater management requirements.

f. The permittee shall maintain an inventory and map of post-construction stormwater controls, including retention ponds, detention basins, and stormwater quality treatment facilities. The inventory should be updated annually.

g. The permittee shall require all new development or redevelopment to establish and enter into a long-term maintenance agreement and maintenance plan approved management practices for property owners. Alternatively, the permittee may establish other enforceable mechanisms for requiring long-term maintenance of structural and non-structural BMPs. Such authorities shall allow the MS4, or its designee, to conduct inspections of the management practices and also account for transfer of responsibility in leases and/or deed transfers. The agreement shall also allow the MS4s, or its designee, to perform necessary maintenance or corrective actions neglected by the property owner/operator, and authority to recover costs from the property owner/operator when the owner/operator has not performed the necessary maintenance.

Compliance with these terms is achieved by implementing the program elements, as shown in Post-Construction Site Stormwater Runoff Controls Tables in Section F of this Part, unless inconsistent with other provisions of this permit.

5. Pollution Prevention/Good Housekeeping for Municipal Operations

a. Develop, if not completed, and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations. The permittee is encouraged to use training materials that are available from EPA, the state or other organizations. The permittee shall include training to prevent and reduce stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance.

b. Maintenance of public streets, roads and highways, including pollutants discharged as a result of deicing application and storage practices must implement alternative measures that might benefit stormwater quality from runoff from roadway and salt bin storage locations and will not affect public safety.

Compliance with these terms is achieved by implementing the program elements, as shown in Good Housekeeping/Pollution Prevention at Municipal-Owned Operations Tables in Section F of this Part, unless inconsistent with other provisions of this permit.

6. Monitor and Control Pollutants in Storm Water Discharges

The permittee shall enhance and continue implementation and track monitoring

and sampling of the MS4, Waters of the Commonwealth of Kentucky. The program shall:

a. Continue to provide the most accurate, reliable data practicable that can be used to determine efficacy of the MS4 SWQMP and other environmental improvement programs;

b. Continue to provide trend analysis data to support long-term assessments of local waterways and program performance.

Compliance with these terms is achieved by implementing the program elements, as shown in Monitoring Programs Tables in Section F of this Part, unless inconsistent with other provisions of this permit.

7. Program Assessment and Reporting

The permittee shall continue to implement a system of assessing the performance of the MS4 program in terms of activities performed and outcomes generated, in both the short-term and long-term.

Compliance with these terms is achieved by implementing the program elements as shown in Program Assessment and Reporting Tables in Section F of this Part, unless inconsistent with other provisions of this permit.

C. SWQMP REVIEW AND MODIFICATION

1. The permittee shall perform an annual review of the current SWQMP in conjunction with preparation of the Annual Report.

2. The permittee may modify the SWQMP during the life of the permit in accordance with the following procedures:

a. Modifications that add but neither subtract nor replace, components, controls, or requirements to the approved SWQMP may be made by the permittee at any time. A description of the modification shall be included in the subsequent Annual Report.

b. Modifications that replace an ineffective or infeasible BMP may be made by the permittee at any time. A description of the replacement BMP shall be included in the subsequent Annual Report along with the following information:

(i) An analysis of why the former BMP was ineffective or infeasible (including cost-prohibitive);

(ii) Expectations on the effectiveness of the replacement BMP; and

(iii) An analysis of why the replacement BMP is expected to achieve the goals of the BMP which was replaced.

c. Modifications to adjust the schedule for maintenance activities or the frequency of inspections or monitoring identified in the SWQMP may be made by the permittee on an annual basis. The permittee must include in the subsequent Annual Report a description of the adjustment to the schedule along with the following information:

(i) An analysis of why the former schedule was ineffective or infeasible; and

(ii) Expectations on the effectiveness of the replacement schedule.

d. Modifications included in the Annual Report shall be signed by the permittee affected by that modification. Modifications will be highlighted by the affected permittee via their web site or other regular

customer service communication methods.

e. The permittee shall implement the SWQMP on all new areas added to their portion of the municipal separate storm sewer system (or for which they become responsible for implementation of stormwater quality controls) as expeditiously as practicable. Implementation of the program in any new area shall consider the plans in the SWQMP of the previous MS4 ownership.

3. Permittee may proceed with any uncompleted programs from the previous permit cycle to ensure the continuation of all positive activities towards improvement of water quality.

4. The permittee shall implement the provisions of the SWQMP. The SWQMP will be proposed by the permittee as a component program of its KPDES permit for its MS4. The SWQMP describes a variety of activities to be implemented by the permittee pursuant to its KPDES permit in order to reduce pollution levels in its municipal stormwater. In light of the voluminous, comprehensive, and evolving nature of the SWQMP, which in some portions may discuss long term plans and aspirational goals of the program and in other may provide general descriptions of the program, many portions of the SWQMP do not lend itself to specific enforcement. Although portions of the SWQMP may not be specifically enforceable, a broad failure to implement programs described in the SWQMP would be subject to enforcement.

D. TOTAL MAXIMUM DAILY LOADS AND IMPAIRED WATERS

1. Total Maximum Daily Loads (TMDLs)

a. BMPs and Approved TMDLs

The requirements of this section apply only to the permittee's MS4 discharges to receiving waters with adopted or established TMDLs and associated allocations. It is the intent of this section to ensure that pollutant discharges for those parameters listed in the TMDL are reduced to the MEP through the implementation of the permittee's SWQMP. The permittee shall make progress toward achieving assigned wasteload allocations (WLAs) by demonstrating through the implementation of structural and nonstructural best management practices and other program activities that are targeted at TMDL-related pollutants within watersheds that discharge to a waterbody with an adopted TMDL. A list of approved or established TMDLs can be found at http://www.water.ky.gov/sw/tmdl/Approved+TMDLs.htm.

Within twelve (12) months of the effective date of the permit, the permittee shall evaluate and implement water quality control measures that are specifically selected to achieve established WLAs for the pollutant of concern.

If a TMDL is approved for an impaired waterbody into which the permitted MS4 discharges and for which the MS4 causes or contributes to water quality impairment(s), the Division of Water will review the TMDL and applicable wasteload allocation(s) to determine whether the TMDL allocates pollutant reductions for stormwater discharges. If current discharges from the MS4 are not meeting TMDL allocations, the Division of Water will notify the permittee of that finding and require that the SWQMP identified in Part II of this general permit be modified. This modification will occur in conjunction with the normal SWQMP updating process, in accordance with Part II.C.2.d of this permit relating to Plan Implementations and Modifications. This modification will include any applicable and appropriate BMPs to implement the TMDL within a reasonable timeframe.

b. Monitoring Program

The permittee shall document, within 12 months of the permit effective date, that it has integrated appropriate measures into the MS4 monitoring program to track water quality trends for the pollutant(s) of concern at the Long-Term Monitoring Network (LTMN) composed of the existing 25 sites servicing waters with an approved TMDL, the permittee shall monitor for these pollutants of concern attributed to MS4 sources for at least 3 storm events every five years. The permittee shall use adaptive management to meet the TMDL. This adaptive management approach allows for evaluation whether progress is being made towards achieving the WLA. The twenty-five (25) sites are attached in Appendix A.

c. Annual Reporting

Annual MS4 compliance reporting requirements shall also include a special section identifying approved TMDL(s) and special efforts or management practices to address the Pollutant(s) of Concern. As appropriate for the pollutant of concern, the permittee will identify measures taken to address in the following program areas:

- Public Education, Outreach, Participation & Learning Experiences (PEOPLE)
- Illicit Discharge Detection and Elimination (IDDE)
- Industrial Stormwater Program (IP)
- Construction Site Stormwater Runoff Controls (CS)
- Post-Construction Site Stormwater Runoff Controls (PC)
- Good Housekeeping/Pollution Prevention (GH/P2)
- Monitoring (M)
- Performance Assessing and Reporting (PAR)

The permittee will include water quality trend analysis for the Pollutant(s) of Concern with other MS4 monitoring program data with annual compliance reports.

2. Impaired Waters

For impaired waters that lack an approved TMDL, the permittee shall evaluate its Best Management Practices in the SWQMP with respect to the MS4 discharges for pollutants of concern that substantially change the discharge to impaired waterbodies listed in the Division of Water report entitled, "2008 Integrated Report to Congress on the Condition of Water Resources in Kentucky Volume II. 303(d) List of Surface Waters", and subsequent publications, to assess their effectiveness in minimizing pollution to such impaired water bodies. The evaluation of BMPs may be conducted on a watershed basis or on a point source basis. For LTMN sites servicing waters that are designated as impaired on the 303(d) list that the MS4 discharges into, the permittee shall monitor the impaired waters for those pollutants attributed to MS4 sources for at least 3 storm events over the course of the permit term. Based upon its evaluation, the permittee shall modify its SWQMP as necessary and appropriate to improve the effectiveness of the BMPs.

E. FISCAL REQUIREMENTS

Funding shall be established and maintained to ensure the accomplishment of the activities required by this permit.

F. COMPLIANCE TABLES

The following tables for MSD and each co-permittee are used to expand on the specific MS4 program requirements.

MSD Tables

TABLE 1. PUBLIC EDUCATION, OUTREACH, PARTICIPATION, AND LEARNING EXPERIENCES (PEOPLE)		
MSD is the primary co-permittee and has an inter-local agreement with its co-permittees; the responsibilities are divided according to the Part I-1, Section A.		
PEOPLE General Public & Stakeholder Education Program		
Element Task	**Frequency or Measure of Success**	**Activity Required**
General Public-Mass Media Integration/Distribution	Report the number of potential households and estimate the numbers of households were reached.	The permittee shall integrate MS4 stormwater quality topics in to existing print mass media, local government cable channel, social marketing materials, and/or new materials with the intent of affecting behavior change.
General Public-Direct Interaction	Permittee shall present educational materials to the public at least six (6) event days per year; update booth material annually. Provide summary of the educational activities in annual report	The permittee shall present the "Key Messages" at community events, through the use of a display booth, "enviroscape" or other direct personal integration approaches.
General Public-Meeting Topic Integration	Starting in year two (2), Permittee shall integrate water quality topics in MS4 public meetings at least six (6) events per year; provide summary of the events in the annual report	The permittee shall integrate MS4 stormwater quality topics, as feasible and appropriate into other MSD sponsored public meetings.
Volunteer Programs, Participation, Promotion or Support	Starting in Permit Year two (2), Permittee shall have direct participation in at least three (3) events per year; and promote additional two (2) events per year, provide summary of volunteer opportunities the permittee participated, facilitate, or supported in the annual report	The permittee shall participate in, facilitate, encourage or support volunteer program opportunities on a case by case basis to optimize resources and potential to affect behavioral changes through participation events.
Metro Call Hotline and MSD Customer Relations	Permittee shall provide a summary of MS4 complaints and comments received in the annual report	The permittee shall provide support to the 24-hour central reporting hotline "Metro Call" and internet communication channels for use by the public and MSD employees to report complaints, spills, and illegal dumping.

MSD Tables

Element Task	Frequency or Measure of Success	Activity Required
Elected Officials	Permittee shall provide a summary of its attendance of meetings at Mayors and/or Council Member's discretion in the annual report	The permittee shall attend and participate at the discretion of Mayor's office and Louisville Metro Council members to address resident's concerns and questions.
Public Speakers	Permittee shall provide public speakers to various community stakeholders at least six (6) events per year	The permittee shall provide speakers to various community stakeholder groups that could benefit from environmental stormwater information.
News Media-Press Releases	Permittee shall provide at least two (2) press releases per year highlighting public participation opportunities	The permittee shall provide press releases to the local news media highlighting opportunities for the public to participate in outreach and involvement events to make a positive difference through behavior change.
MSD Web Site	Permittee shall report summary of updates in the annual reports of Permit Years 2 and 4	The permittee shall review and revise the website with the "Key Messages" content and other related PEOPLE plan elements.
Behavior Change Assessment Survey	Permittee shall provide summary in the annual report of the Baseline Survey in Permit Year one (1) and the Behavior Assessment in Permit Year four (4).	The permittee shall perform a statistical survey to gauge the population's knowledge of stormwater quality issues and establish baseline to assess the changes in behavior and outreach program effectiveness. The permittee shall utilize the survey results to refocus and reprioritize PEOPLE activities.
Developers Advisory Group	Permittee shall participate in at least three (3) events per year	The permittee shall participate in the Developers Advisory Group (DAG) meetings to address concerns and comments from key local development professionals and provide information regarding changes in construction procedures, checklist, regulations, etc.

MSD Tables

[illegible]
[illegible]

[illegible]	[illegible]	[illegible]
Homebuilders Association Land Development Committee Monthly Meetings	Permittee shall participate in at least 75% of the meetings annually	The permittee shall attend Homebuilders Association land development committee meetings to address concerns and comments from the local homebuilder professional and provide information regarding changes in procedures, checklist, regulations, etc
Greater Louisville Inc. Environmental and Water Committees	Permittee shall participate in at least three (3) events per year	The permittee shall participate in committee meetings to address concerns and comments from key local development professionals and provide information regarding changes in construction procedures, checklist, regulations, etc.
Construction Operators	Permittee shall evaluate educational materials and/or multimedia presentations for the construction industry related to point and non-point source pollution and stormwater pollution annually	The permittee shall make available educational materials and/or multimedia presentations for the construction industry related to point and non-point source pollution, green infrastructure and stormwater pollution prevention measures for operational procedures and erosion and sediment controls.
Rain Garden Outreach	Permittee shall estimate handbook distribution and report in the annual report	The permittee shall maintain and update rain garden handbook with the intent of general public outreach. Consider expanding use to support residential, non-residential professional and non-professional audiences. The permittee shall evaluate changes and make updates at least every even numbered year.
Green Infrastructure Demonstration Projects	Permittee shall provide a Summary Report of Green Infrastructure demonstration projects in the annual report	The permittee shall implement series of projects aimed at demonstrating the feasibility and effectiveness of green infrastructure including, but not limited to rain gardens, green roofs, pervious pavement, bio-swales and infiltration. Prioritize, select and implement projects to support a variety of residential, non-residential, professional and non-professional audiences in MSD and co-permittee areas. Where feasible collaborate and/or cooperate with local government agencies, schools, co-permittees and/or private properties with significant use and exposure to the general public.

MSD Tables

TABLE 1. PUBLIC EDUCATION, OUTREACH, PARTICIPATION, AND LEARNING EXPERIENCES (PEOPLE)		
PEOPLE General Public & Stakeholder Education Program cont'd		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Public Notification of Major Program Changes	Permittee shall finalize notification system within twelve (12) months of effective date of permit	The permittee shall develop a web site-based system to notify the public and affected stakeholders of proposed major program changes that will significantly impact stormwater runoff quality, negatively or positively. The public shall be given the opportunity to informally comment on proposed changes and these comments will be summarized and made available on the website.
Cooperative Efforts (MSD provides supportive or other non-lead role)		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Jefferson County MS4 Workgroup-Communication	Permittee shall attend at least two (2) meetings per year	The permittee shall participate in the Jefferson County MS4 Co-Permittee Workgroup meetings discussing program progress, challenges, activity changes, shared activity requests communication needs and lesson learned.
"Go Green Louisville" Program Assistance	Permittee shall report its activities and support of the "Go Green Louisville" initiatives in the annual report	The permittee shall continue to support Louisville Metro and the "Go Green Louisville" initiatives with development of guidance materials to be applied to new Metro Government Facilities incorporating green infrastructure.

MSD Tables

TABLE 2. ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)		
MSD is the primary co-permittee and has an inter-local agreement with its co-permittees; the responsibilities are divided according to the Part I-1, Section A.		
TASK 1: LEGAL PROHIBITION/CONTROL AUTHORITY		
Element Task	Frequency/Measure of Success	Activity Required
Assess Legal Prohibition/Control Authority	Permittee shall evaluate, in the odd-numbered permit years, the proposed changes in Wastewater Stormwater Discharge Regulations (WDRs) for consideration by MSD Board	The permittee shall evaluate existing ordinances and regulations with an emphasis on Article 5 of the WDRs to determine if they are sufficient relative to MSD's ability to implement an effective IDDE program per 40 CFR. 122.26(b) (2). The permittee shall periodically update WDRs as needed to identify and eliminate risk of illicit discharges due to changes in technology, industrial management processes, regulations or program modifications. The permittee shall provide a summary of the adoption of such changes and information about implementation, and effective date in the Annual Report.
IDDE Source Investigation and Elimination Procedures	Submit to the Division of Water within six (6) months of the effective date of the permit	The permittee shall develop and implement a formal plan of illicit discharge detection including how to trace the source of an illicit discharge and procedures for removing or eliminating them once they are located or reported. The plan should also include the enforcement procedures outlined in the WDRs for illicit discharge elimination, which includes ten (10) days from the receipt of the Notice of Violation; the source of the illicit discharge shall submit a mitigation plan for removal.
Public Illicit Discharge Report Investigation	Permittee shall provide in the annual report, a summary of the investigations of illicit discharges performed	The permittee shall continue to receive and investigate public reports of potential illicit discharges via customer service hotline, webpage reporting and Metrocall. The permittee shall update and perform customer service hotline staff training for receiving calls regarding potential illicit discharges and appropriate routing procedures.
Dry Weather Screening	Permittee shall provide in the annual report, a summary of the dry weather screenings performed.	The permittee shall conduct dry weather screening of representative outfalls. The recommended level of effort is twenty percent (20%) of the major outfalls per year. However, all the major outfalls shall be addressed within the permit term. The permittee shall also conduct dry-weather screenings at ninety percent (90%) of large industrial outfalls of industrial facilities once every two years.
Screening Follow-up	Permittee shall starting in Permit Year One (1) inspect at least 25% of suspect outfalls per year	After the initial follow-up to insure the illicit discharge has been mitigated, the permittee shall re-evaluate outfalls that were previously found to have had contaminated discharges to determine the current status of those outfalls.

MSD Tables

TABLE 2. ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE) cont'd		
IDDE 2 Management Activities		
Element Task	Frequency or Measure of Success	Activity Required
Mapping - Stormwater Infrastructure Inventory	Permittee shall maintain a storm sewer system map	The permittee shall continue to maintain the GIS Louisville Jefferson County Information Center (LOJIC) layers constituting its storm sewer system map, showing the location of all known major outfalls, and the names and location of all waters of the Commonwealth that receive discharges from those outfalls.
Non-Industrial IDDE Program Enforcement	Permittee shall report annually, including number of investigations, enforcement actions and referrals to KDOW, and follow-up investigations.	The permittee shall continue to utilize the Wastewater/Stormwater Discharge Regulations, related checklists and procedures for investigation of potential illicit discharges and elimination of illicit discharges.
Hazmat/Spill Unified Response Program	Permittee shall report, if necessary, any changes to the policies and programs and procedures, in the annual report	The permittee shall continue to maintain and enforce the ordinances, policies, programs and procedures for response and containing spills that may discharge into the MS4. The spill response procedures outlined in Section 95.07 of the Louisville Metro Code of Ordinances relating to hazardous materials shall continue to be implemented and enforced.
On-site SWPPP	Permittee shall document SWPPP procedures and expectations and make the procedures and expectations publicly available	The permittee shall institute procedure for receiving Stormwater Pollution Prevention Plans (SWPPP) for qualifying construction sites within six months of the effective date of the permit.
MVA Mitigation Kit Program	Permittee shall report metrics for kit distribution and after-use collection in the annual report	The permittee shall continue motor vehicle accident (MVA) mitigation kit distribution program to meet Fire Department and emergency response spill containment needs.
IDDE Identification SWPPP Training Integration	Training shall occur at least once per year and the permittee shall report in the annual report the date of training and the number of staff participating in training	The permittee shall integrate techniques and practices to assist staff identify potential illicit discharges into facility and system operations and maintenance training.

MSD Tables

Subtask Task	Frequency or Measure of Success	Activity Required
KDOW Support	Permittee shall summarize and include in the annual report any assistance given to the Kentucky Division of Water by MSD	As KDOW requests, the permittee shall accompany KDOW on inspection of KPDES stormwater permitted facilities in Jefferson County.

MSD Tables

TABLE 3. INDUSTRIAL STORMWATER PROGRAM		
[illegible] (IP)		
MSD is the primary co-permittee and has an inter-local agreement with its co-permittees; the responsibilities are divided according to the Part I-1, Section A.		
IP 1 Legal Prohibition/Control Authority		
Element Task	Frequency of Activity or Measure	Activity Required
Industrial IDDE Program Enforcement	Permittee shall summarize in the annual report the industrial enforcement actions and referrals to Kentucky Division of Water	For industrial properties, the permittee shall continue to utilize the Wastewater/Stormwater Discharge Regulations, Hazardous Materials Ordinance and related checklists and procedures for identification of potential illicit discharges and elimination of illicit discharges/ unauthorized stormwater discharges. The permittee shall perform analysis of industry property data layer in LOJIC cross linking with properties holding a Hazardous Materials (spill) Prevention Control (HMPC) Plan to identify potential sites that should be added to the program with consideration for High Risk Industrial Facilities designation (determined in other activities).
Industrial IDDE Program Enforcement	Within six (6) months of the effective date of the permit the Permittee shall have established adequate legal authority to require compliance with this measure.	The permittee shall maintain adequate legal authority, per 401 KAR 5:060, Section 12(9)(b)3 and 40 CFR 122.26(b)(2), to require compliance and inspection of sites, inspection of priority industrial and commercial facilities, including establishing control measure requirements such as Hazardous Materials Management Prevention and Control (HMPC), Spill Prevention, Control and Countermeasure (SPCC) Plan and/or the Groundwater Protection Plan (GPP) for facilities that have a potential to discharge to the MS4 and enforce stormwater requirements.
IP 2 [illegible]		
Element Task	[illegible] Measure	Activity Required
Industrial Facility Inventory	Permittee shall update annually and made available to the Division of Water upon request	The permittee shall maintain an inventory of all potential industrial and commercial sites/sources that could contribute substantial pollutant loads to the MS4.

MSD Tables

[illegible]	[illegible]	[illegible]
II.E. Inventory and Inspection of Industrial Facilities cont'd		
[illegible]	[illegible] Success	[illegible]
"High Risk" Facility Definition	Permittee shall report results by end of Permit Year one (1)	The permittee shall identify Risk Factors to define facilities as "High Risk", "Moderate Risk" and "Low Risk".
HRIF Inventory Update	Permittee shall summarize and report annually, the assessment and updates of any industrial facilities identified as "High", "Moderate", and "Low" risk	The permittee shall compare the datasets for local Approved HMPC Plan Facilities to the publicly available Facility data from local and state environmental and emergency response agencies to address the completeness and accuracy of High Risk Industrial Facilities identification. The permittee shall update the list of HRIFs at least twice over the permit term, to account for the most recently available North American Industry Classification System (NAICS), Standard Industrial Classification (SIC) codes, Toxic Release Inventory (TRI) data, MSD's HMPC data and MSD's pretreatment program data with the goal of establishing a tiered list of industries to support priorities in MSD's industrial facility inspection program.
HRIF and High-Risk HMPC Inspection	Starting in Permit Year two (2), the Permittee shall report the summary of prioritized inspections completed, and any enforcement resulting from the inspections.	Based on the results of the updated HRIF assessment, the permittee shall inspect high priority facilities at least once every three (3) years and moderate risk facilities at least once every five (5) years.
Industrial Facility Control Measures	Starting in Permit Year two (2), the Permittee shall report annually on control measures required of the high-risk industrial and commercial facilities to ensure compliance with this measure.	The permittee shall require the High Risk industrial and commercial facilities to select, install, implement, and maintain control measures that promote prevention and source control for discharge of applicable pollutants of concern. This requirement may be addressed through the Hazardous Materials (spill) Prevention Control (HMPC) Plan and/or federal programs such as Spill Prevention, Control and Countermeasure (SPCC) Plan and/or the Groundwater Protection Plan (GPP) that are already implemented at the industrial and commercial facilities. The permittee shall require the applicable facilities to identify the specific control measures, good housekeeping and maintenance procedures, and employee training necessary.

MSD Tables

Element Task	Frequency or Measure of Success	Activity Required
Enforcement/ Inspections	Within six months of the permit issuance, the Permittee shall develop the required criteria or procedures to comply with this measure.	The permittee shall develop criteria or procedures for site inspections and enforcement including criteria to address how the MS4 will use enforcement authorities to ensure compliance with the industrial program requirements. The permittee shall enforce the procedures outlined in Section 95.11 of the Louisville Metro Code of Ordinances relating to hazardous materials.
MSD Plan Review	Permittee shall assess at least every three (3) years and report changes to process in the annual report	The permittee shall determine if existing triggers in the new development and redevelopment plan and plumbing systems review process are sufficient to include appropriate industrial stormwater quality specialists/inspectors in the plan approval process.
Industrial & Commercial Community Outreach	Starting in Permit Year two (2), the Permittee shall identify materials developed and distribution estimates and summarize in the annual report	The permittee shall develop and distribute outreach materials (brochure, fact sheets, etc.) to HMPC Facilities and other commercial operations of concern to promote illicit discharge elimination awareness.
Table 3. Industrial Stormwater Program		
Cooperative Efforts (MSD provides supportive or other non-lead role)		
Element Task	**Frequency or Measure of Success**	**Activity Required**
KDOW Support	Permittee shall summarize and include in the annual report any assistance given to the Kentucky Division of Water by MSD	As KDOW requests, the permittee shall accompany KDOW on inspection of KPDES stormwater permitted facilities in Jefferson County.

MSD Tables

[redacted]		
MSD is the primary co-permittee and has an inter-local agreement with its co-permittees; the responsibilities are divided according to the Part I-1, Section A.		
[redacted]	[redacted]	[redacted]
Assess Legal Prohibition/Control Authority	Permittee shall summarize proposed changes enumerated by end of permit years one (1) and three (3) and report proposed changes in to Wastewater/Stormwater Discharge Regulations for consideration by MSD Board in the annual report	The permittee shall assess existing ordinance and regulations to identify changes needed to account for changes in standard of care (as directed by KDOW General Construction Permit KYR10), changes in technology, changes to development management process and related program needs in satisfaction 40 CFR 122.26(b)(15)(i) for construction activities that result in a land disturbance of greater than or equal to one acre and construction activity disturbing less than one acre that is part of a larger common plan of development that would disturb one acre or more.
Implement Legal Prohibition/Control Authority	Permittee shall require routine inspections of active construction sites with reasonable potential to discharge to MS4. A summary of these inspections and any enforcement actions resulting from these inspections shall be included in the Annual Report	The permittee shall continue to enforce existing ordinances and regulations intended to limit construction phase stormwater quality impacts from new construction and significant redevelopment.
Site Plan Review	Permittee shall review plans as needed and report the number of plans reviewed in the Annual Report	The permittee shall conduct site plan reviews in accordance with the procedures outlined in Section 159.02 of the Louisville/Jefferson County Erosion Prevention and Sediment Control Ordinance to assess whether the plans include measures that address potential water quality impacts from construction prior to authorization of land disturbance.
Construction Site Inspection	Within 60 days of permit effective date	The permittee shall develop and implement criteria and/or procedures for site inspection. The procedures shall include an Enforcement Response Plan outlined in Section 159.05 of the Louisville/Jefferson County Erosion Prevention and Sediment Control Ordinance.
Construction Site Inspection Frequency	Permittee shall report the number of inspection performed in the Annual Report	The permittee is required to conduct inspections monthly or after 0.5 inch rain events with less frequent MSD oversight inspections of at least 90% of active sites.

MSD Tables

TABLE 4. CONSTRUCTION SITE STORMWATER RUNOFF CONTROL REQUIREMENTS (CS)

CS 2. CS Management Activities

Element Task	Frequency or Measure of Success	Activity Required
Construction Site Inventory	Inventory continually updated as projects are permitted and projects are completed	The permittee shall develop and maintain an inventory of all active public and private construction sites that result in a total land disturbance of greater than or equal to one acre and less than one acre that is part of a larger common plan of development. Inventory should include the project's name, address, contact person, inspection dates, and any enforcement actions issued to the project.
Construction BMP Guidance Materials	Permittee shall update the Design Manual and Standards Specifications by end of permit years one (1) and four (4) and make the updates publicly available	As needed to account for changes in the KDOW general construction permit(s), the permittee shall update the guidance materials facilitating current technology use, local plan review/inspection requirements and related implications, Design Manual chapters and Standard Specifications sections to address EPSC and other construction phase (waste concrete, fueling and repairs operations, etc) topics including BMP selection, feasibility, design considerations, operation, maintenance, inspection checklist and related matters.
On-site SWPPP	Permittee shall document SWPPP procedures and expectations and make the procedures and expectations publicly available	The permittee shall institute procedure for receiving Stormwater Pollution Prevention Plans (SWPPP) for qualifying construction sites within six months of the effective date of the permit.
Construction Stormwater Runoff Control Program Inspection Refresher	Permittee shall complete refresher with Construction inspectors annually, reporting the date and the number of attendees in the Annual Report	The permittee shall review inspector practices with individual MSD and contract inspectors to communicate/confirm oversight responsibilities, documentation requirements, and frequency of inspection, inspection standards and protocols. The refresher review (performed on-site) will include EPSC and non-EPSC construction stormwater control metrics, the most current KDOW General Construction Permit and the current USEPA MS4 Program Evaluation Construction Site Checklist.

MSD Tables

Construction Inspector Training	Permittee shall provide at least three (3) training opportunities annually reporting the date and the number of attendees in the Annual Report	The permittee shall continue construction inspector training program placing new emphasis on delivering similar messages and understanding between MSD inspectors (regular and contracted) and qualified local contractor inspectors.
Plan Preparers and Reviewers Training (MSD Facilitates)	Permittee shall offer at least two (2) events annually and starting in Permit Year two (2) report program updates in the annual report	The permittee shall identify updates to the plan preparers training program currently administered through the Jefferson County Public School System placing new emphasis on identifying sensitive features (305b listed streams, threatened or endangered species, etc.) and customizing site SWPPPs to account for the special conditions.
Local Utility Construction General Permit Entities	Permittee shall hold meetings with at least 90% of MSD's EPSC general permit holders at least every two years	The permittee shall continue to coordinate policy level stakeholders from local utility agencies holding construction general permits from MSD to confirm inter-agency communication protocols and review changes to standard, policies, procedures, BMP operation expectations and related matters.
MSD General Construction Permits Evaluation	Permittee shall evaluate all general permits by the end of Permit Year three (3); and report general construction permits issued by MSD in the annual report	The permittee shall evaluate General Construction Permits issued by MSD to utilities and other entities to determine adequacy with revisions to the KDOW general construction permits, changes in permittee organization/practices, MSD standards, etc.
Enforcement Tracking Log/Database	Permittee shall summarize enforcement actions in the annual report. A summary of the tracked enforcement actions issued shall be included in the Annual Report	The permittee shall continue to track enforcement actions issues (SWO/NOVs) to support follow-up inspections and issuance of penalties and/or Notice of Compliance.

MSD Tables

TABLE 4. CONSTRUCTION SITE STORMWATER RUNOFF CONTROL REQUIREMENTS (CS) cont'd		
Cooperative Efforts (MSD provides supportive or other non-lead role)		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Plan Development Process Identification	Permittee shall make up-to-date guidance documents publicly available. A summary of the revised guidance materials shall be included in the Annual Report	The permittee shall review and update, as needed guidance materials identifying the process that developers must follow to obtain related construction permits, including process flow charts and checklists.
Metro IP & L Enforcement Coordination	Permittee shall hold at least one (1) conference every other year starting in Permit Year one (1)	The permittee shall coordinate program enforcement actions with Metro Inspections, Permits and Licensing (IP& L), as necessary, to support overall site compliance with an emphasis on Notices of Deficiency, Notices of Violation, and Stop Work Orders issued by MSD and implications on land disturbance and "in building" activities.

MSD Tables

[illegible] 5: POST-CONSTRUCTION (PC) STORMWATER RUNOFF CONTROL FOR NEW DEVELOPMENT AND REDEVELOPMENT		
MSD is the primary co-permittee and has an inter-local agreement with its co-permittees; the responsibilities are divided according to the Part I-1, Section A.		
PC 1 Legal Prohibition/Control Authority		
[illegible]	Frequency or Measure of Success	[illegible] Required
Assess Legal Prohibition/Control Authority	Permittee shall make assessments in Permit Year one (1) and if necessary, in Permit Years two (2) and four (4) report proposed changes in the WDR for consideration by MSD Board.	The permittee shall assess existing Wastewater/Stormwater Discharge Regulations and other relevant ordinances and regulations, to identify changes needed to account for changes in standard of care, changes in technology, changes to development management process and related program needs for new development and redevelopment projects that disturb greater than or equal to one acre and construction activity disturbing less than one acre, including projects less than one acre that are part of a larger common plan of development.
Implement Legal Prohibition/Control Authority	Permittee shall summarize enforcement actions in the annual report. The permittee shall include the number of inspections and enforcement actions.	The permittee shall enforce existing ordinances and regulations intended to limit long-term stormwater quality impacts from new construction and significant redevelopment.
Site Plan Review	Within thirty days of permit effective date	The permittee shall conduct site plan reviews through procedures for reviewing development plans for compliance with stormwater management requirements.
Stormwater Infrastructure Inventory	Permittee shall update the GIS LOJIC System as data becomes available	The permittee shall continue to maintain the GIS-LOJIC layers incorporating system changes from new development plans, MSD projects and related system projects.
Post-Construction BMP Inventory Update	Permittee shall incorporate related data on ongoing basis; Permittee shall assess data to identify and fill dataset gaps every other year.	The permittee shall develop and maintain an inventory and map of post-construction stormwater controls, including retention ponds, detention basins, and stormwater quality treatment facilities. The permittee shall update LOJIC and Hansen datasets to reflect the location, extent, and condition of post-construction stormwater quality BMPs.
Post-Construction Inspector Training	At least two trainings per year for the inspectors of Post-Construction BMPs. Report in the annual report, the dates of training, # of attendees, and subject matter.	The permittee shall provide training to the inspectors including internal staff that have been designated to inspect the effectiveness of the post-construction BMPs, as well as, the local residents who are required to provide operation and maintenance of privately-owned Post-Construction BMPs.

MSD Tables

Element Task	Frequency of Measure of Success	Activity Required
Regional Flood Control BMP Retrofit Analysis	Permittee shall complete assessment report identifying with high, moderate, and low retrofit potential by the end of Permit Year three (3) and summarize on the annual report	The permittee shall evaluate regional flood control basins to determine stormwater quality treatment incorporation/retrofit feasibility. Explore opportunities to cost-share, incentives or otherwise finance the projects.
Inspect "Credit" Basins	Permittee shall perform spot check inspections for at least 50% of qualifying facilities annually starting in Permit Year two (2) and summarize for the annual report	The permittee shall inspect private flood control basins, (retention ponds) receiving a stormwater utility user fee credit (reduction) to determine ability to fulfill original, current and projected drainage demands. Continue to enforce, per existing basin credits documentation requirements, necessary to fulfill maintenance agreements and long-term system integrity.
Inspection Plan Procedures for Treatment BMPs	Permittee shall perform spot check inspections for at least 20% of treatment BMPs annually starting in Permit Year two (2). All BMPs should be inspected by the end of the permit cycle. A summary of this activity shall be included in the annual report	The permittee shall develop and implement inspection and oversight protocol for private stormwater quality treatment BMPs to facilitate long-term maintenance demands including requirements for qualified private inspection of private BMPs with local government oversight access inspection and controls.
Post-Construction and Green Infrastructure BMP Guidance Materials	Permittee shall update the guidance materials specifically the Design Manual chapters and Standards Specifications sections and make the document publicly available	The permittee shall evaluate and update the guidance materials facilitating current technology use and to reflect local plan review, construction site inspection and post-construction inspection requirements. Design Manual chapters and Standard Specifications sections to address long-term BMP operation, inspection and maintenance including checklists. "Green Infrastructure" is a combination of natural and engineered infrastructure that is designed to reduce the environmental footprint of the system. In terms of stormwater, green infrastructure can effectively manage stormwater runoff through the use of infiltration, biofiltration, detention, and other stormwater management techniques.

MSD Tables

Element Name	Frequency or Measure of Success	Activity Required
Plan Preparers & Reviewers Training (MSD Facilitates)	Permittee shall continue to offer at least two (2) events annually. A summary of workshops topics and attendance shall be submitted in the annual report	The permittee shall provide available content, such as EPA webcasts, through periodic training classes, workshops and meetings for designers, planners, and developers including emphasis on green infrastructure, post-construction planning, and design procedures for structural and non-structural BMPs, pollutant removal and inspection.
Plan Preparers & Reviewers Training	Permittee shall summarize in the annual report, training updates and offer at least three (3) training opportunities annually	The permittee shall update, as necessary, content to the existing training program currently administered by Jefferson County Public School System or to a new program to address green infrastructure, post-construction stormwater quality BMP issues.
Project DRI	Permittee shall provide program progress summarizing cost, number and type of projects in the annual report	The permittee shall continue to implement Drainage Response Initiative (DRI) program aimed at identifying and solving the local drainage problems in Jefferson County.
User Fee Credits (Green Infrastructure Incentives) Program Planning	Permittee shall provide assessment and planning results by the end of Permit Year two (2) in the annual report	The permittee shall assess the feasibility of implementing a utility user fee credits program for green infrastructure and post-construction BMPs. The permittee shall perform a feasibility assessment to include considerations for financial sustainability, billing system administration, utilization potential, credit longevity, oversight inspections and related matters. Develop a schedule, that addresses feasibility study issues, to setup a program to promote stormwater utility user fee credits opportunities for properties implementing stormwater quality BMPs beyond minimum requirements with the intent of encouraging flood control pond retrofit, redevelopment GI BMP incorporation and new development GI BMP implementation. This program may offer incentives for developers to use cost-effective, eco-friendly solutions.

MSD Tables

Effective Task	Frequency of Submittal of Summary	Activity Required
Stream Restoration Inspection and Maintenance	Permittee shall provide in the annual report, summarized stream reaches and maintenance performed to be started in Permit Year two (2)	The permittee shall identify restored stream reaches that MSD has maintenance responsibilities. The permittee shall also determine status of restored reaches and identify, prioritize/schedule and implement maintenance needs.
Certified/qualified Construction BMP Inspector Program	Permittee shall by the end of Permit Year two (2), summarize the feasibility report study result and schedule of action items and include summary in the annual report	The permittee shall outline and determine the feasibility of a program to identify and hold accountable third party private BMP inspectors (such as home inspectors) to facilitate periodic operation and maintenance of private facilities resulting from the credits program, regulations changes and demonstration projects. If results warrant, develop schedule to implement requirements for private BMP inspections and resulting training/testing program.
Stormwater runoff quality treatment standard for all new development and redevelopment projects	Within sixty days (60) of the effective permit date, permittee shall submit a local treatment standard for addressing stormwater runoff quality.	The permittee shall develop an on-site stormwater runoff quality treatment standard, to be adopted by ordinance or other regulatory mechanism for all new development and redevelopment projects. The proposed local standard will require, in combination or alone, management measures that are designed, built and maintained to infiltrate, evapo-transpire, harvest and reuse stormwater runoff, or otherwise manage the stormwater runoff quality. The standard shall be based, at a minimum, on an analysis of precipitation records to determine the equivalent surface depth of runoff (e.g. 0.75 inches) produced from an 80^{th} percentile precipitation event.
Private BMP Maintenance Agreement Assessment/Long Term O & M	Within 12 months of the effective date of the permit all new development and redevelopment projects shall be required to have this agreement	The permittee shall require all new development or redevelopment to establish and enter into a long-term maintenance agreement and maintenance plan approved management practices for property owners. Alternatively, the permittee may establish other enforceable mechanisms for requiring long-term maintenance of structural and non-structural BMPs. Such authorities shall allow the MS4, or its designee, to conduct inspections of the management practices and also account for transfer of responsibility in leases and/or deed transfers. The agreement shall also allow the MS4s, or its designee, to perform necessary maintenance or corrective actions neglected by the property owner/operator, and authority to recover costs from the property owner/operator when the owner/operator has not performed the necessary maintenance.

MSD Tables

[illegible]	[illegible] Success	Activity Required
Green Infrastructure Demonstration Site(s)	Permittee shall report its role and activities, lessons learned, and overall project progress and summarize for the annual report	The permittee shall continue, in cooperation with Louisville Metro Mayor's administration, University of Louisville and other local agencies, to pursue development of stormwater quality and green infrastructure interpretative center(s) at strategic location(s) around Jefferson County with the intent of providing a positive highly visible platform to promote the viability and desirability of green infrastructure BMPs. Where feasible explore the opportunity for BMP evaluation and pre-/post-monitoring.
Rain Barrels and Louisville Nature Center	Permittee shall report its role, lessons learned and overall programs progress and summarize for the annual report	The permittee shall explore the opportunity for MSD to continue program with Louisville Nature Center that provided public guidance to construct and maintain rain barrels.
Pond Creek and Mill Creek Recreational Planning	Permittee shall report its role, lessons learned and overall programs progress and summarize for the annual report	The permittee shall continue to collaborate with the US Army Corps of Engineers in their efforts to develop a trail system integrating community assets and environmental resources.

MSD Tables

TABLE 6. GOOD HOUSEKEEPING/POLLUTION PREVENTION (GH/PZ) PROGRAMS FOR MUNICIPAL FACILITIES

MSD is the primary co-permittee and has an inter-local agreement with its co-permittees; the responsibilities are divided according to the Part I-1, Section A.

GH/PZ Plan Maintenance and Update

Element Task	Frequency or Measure of Success	Activity Required
Stormwater Pollution Prevention Plans for MSD Operations	Permittee shall assess plans within six (6) months of major facility changes or at least once every two years by the facility superintendents and operation managers who makeup the SWP3 Committee.	The permittee shall periodically update and implement Stormwater Pollution Prevention Plans (SWPPPs) (also known as BMP Plans or Stormwater Plans) to control the discharge of pollutants from POTWs and other applicable MSD-owned facilities as defined in 40 CFR 122.26 including wastewater treatment plants and major operating facilities. SWPPPs will include provisions for maintenance activities on facility grounds, materials and equipment storage, security, preventative maintenance, risk identification and assessment, materials inventory, floor drain protection/controls, inspections and records.
Training on MSD Facility SWPPPs	Permittee shall starting in Permit Year two (2) address at least three (3) SWPPP issues annually and summarize training and attendance for the annual report	The permittee shall utilize the facility SWPPP Committees to perform routine training of key SWPPP issues
Maintenance Staff Training on Pollution Prevention	Permittee shall report the number of staff attending related training and include in the annual report	The permittee shall provide training to key maintenance staff on good housekeeping activities related to stormwater quality in MSD operations including but not limited to: green infrastructure operation and maintenance, fleet and building maintenance, and stormwater conveyance/drainage system maintenance.
Pesticides Management	Permittee shall track employees with related state certifications	The permittee shall utilize Commonwealth of Kentucky pesticide management registration and certifications to qualify MSD employees applying pesticides. The permittee shall develop and maintain a list of pesticides used and stored, including storage locations.
Incident Response Staff Training	Permittee shall report incident response staff training participation starting in Permit Year two (2)	The permittee shall provide training to unified incident response staff on related stormwater issues including good housekeeping, IDDE, construction, post-construction BMP/controls and program management.

MSD Tables

Element Name	Frequency or Measure of Success	Activity Required
MSD Capital Project Control	Permittee shall summarize changes to MSD Capital Project requirements starting in Permit Year two (2)	The permittee shall, for MSD directed capital, rehabilitation and reconstruction projects, disturbing more than one acre, performed by a contractor, ensure the contract documents/agreements/work orders will include stipulations that require the work be designed/performed/implemented/constructed under the same standards for construction and post-construction stormwater quality that MSD requires of private development it regulates.
MSD Stormwater Quality BMP Data	Permittee shall every other year assess datasets for completeness and ability to support staff scheduling stormwater-quality BMPs MSD is responsible for maintaining starting in Permit Year two (2)	The permittee shall update LOJIC and Hansen datasets to identify stormwater-quality BMPs located on MSD properties, rights-of-way and easements that MSD is responsible for operating and/or maintaining. The datasets will be updated in a manner to support ongoing prioritization and tracking of operation and maintenance.
Catch Basin and Storm Sewer Cleaning	Permittee shall summarize and include in the annual report	The permittee shall continue to clean catch basins and sewers (closed pipe systems) to prevent debris from entering receiving streams and address drainage/flooding issues in MSD area based on known priorities and information gathered from the customer hotline.
Channel Maintenance	Permittee shall summarize and include in the annual report	The permittee shall continue to maintain open channel system in MSD area based on priorities and information from the customer hotline including ditch cleanings, ditch regrading, drainage obstruction removals, erosion repairs, floodwall levee maintenance, headwall install/repair, concrete channel installation, tree removal, driveway apron restoration, routine mowing and closed pipe installations.
Cooperative Efforts (MSD provides supportive or other non-lead role)		
Element Name	**Frequency or Measure of Success**	**Activity Required**
Stormwater Pollution Prevention Plans for Co-Permittee Operations	Permittee shall assist in the review of at least one (1) facility annually if requested by co-permittees	As co-permittees make request, the permittee shall provide periodic 3rd-party technical assistance and/or review of the facility stormwater pollution prevention plans (SWPPPs, BMP plans, or Stormwater Plans and BMPs) and/or site visit/walkthrough to help identify opportunities to improve the effectiveness of the plans and their implementation.

MSD Tables

PART 7 MONITORING (M)		
MSD is the primary co-permittee and has an inter-local agreement with its co-permittees; the responsibilities are divided according to the Part I-1, Section A.		
M Monitoring Plan Maintenance and Update		
Element Task	**Frequency and Measure of Success**	**Activity Required**
Long-Term Monitoring Network (LTMN)	Permittee shall provide datasets electronically with annual report	The permittee shall continue the existing program of the collection of long-term data on stream quality and habitat for at least 25 LTMN locations selected to support the various types of data collected. This program includes: **Continuous** - pH, conductivity, temperature, dissolved oxygen, percent dissolved oxygen and stream flow. **Once Every Two Years** - Biological sampling and/or evaluation rotating to include: algae, fish and benthic macro invertebrates. **Quarterly** - Ambient monitoring for Total Suspended Solids (TSS); Total Dissolved Solids (TDS); Fecal Coliform; E. coli; Oil and Grease; Biochemical Oxygen Demand (BOD5); Chemical Oxygen Demand (COD); Lead, Total Recoverable; Cadmium, Total Recoverable; Copper, Total Recoverable; Zinc, Total Recoverable; Dissolved Phosphorus; Total Phosphorus; Total Ammonia Nitrogen (as N); Total Kjeldahl Nitrogen (as N); Nitrate plus Nitrite Nitrogen (as N); and pH **5/month (May-October)** - Recreational monitoring for fecal Coliform. **1/month (May-October)** - Recreational monitoring for E. coli.
Monitoring Summary	Permittee shall summarize and include in annual report	The permittee shall provide a summary of monitoring collection efforts and results in the annual report.
Trend Analysis	Permittee shall, at least once per permit cycle, provide synthesis report	The permittee shall perform trend analysis to support long-term assessments of local waterways and program performance. Report analysis through the "Synthesis Reports" at least once every permit cycle.

MSD Tables

[illegible]	[illegible]	[illegible]
Flow Estimate to Support Quarterly Ambient Monitoring	Permittee shall provide available data and include in annual reports	The permittee shall utilize total precipitation estimates over the previous twenty-four (24) hour period to estimate flow. When flow is measured with in stream gauging equipment, that data will be utilized rather than precipitation based estimates.
Monitoring Location Maintenance	Permittee shall summarize activities and include in annual reports	The permittee shall continue its collaboration with United States Geological Survey (USGS) on flow gauges and monitoring locations maintenance and data management.
Precipitation Estimate	Permittee shall continue to make rain gauge network data available on-line	The permittee shall continue to maintain the continuous rain gauge network and on-line public access to that data.
Water Quality Standards	Permittee shall apply the most stringent standard	The permittee shall compare stream monitoring analytical results to the applicable water quality standards for each parameter of the monitoring program. The most stringent applicable standard shall be used for comparison. Constituents that exceed applicable Water Quality Standards shall be highlighted. The permittee shall include a discussion of possible pollutant sources through the annual report.
Location Mapping	Permittee shall maintain the monitoring stations reflected in mapping system	The permittee shall maintain the geo-coded monitoring station locations and descriptions through related geographic datasets and databases.
Sampling Methodology and Test Procedures	Permittee shall perform the sampling methodology to insure compliance with 40 CFR 122.26 and 136	The permittee shall perform the sampling methodology according to the EPA stormwater application regulations at 40 CFR 122.26. The permittee shall perform the analyses according to the procedures approved under 40 CFR Part 136, unless other test procedures have been specified.
Annual Data Summary	Permittee shall provide a summary electronically with the annual report	The permittee shall submit a stormwater monitoring report annually. The monitoring reports shall include: status of implementation of the monitoring program, methods of evaluating data, graphical summaries of the data, and an explanation/discussion of the data for each component of the monitoring program. The monitoring data/results obtained each year will be submitted electronically with the Annual Report. A narrative data analysis shall be submitted annually with in the Annual Report.

MSD Tables

[illegible]
MSD is the primary co-permittee and has an inter-local agreement with its co-permittees; the responsibilities are divided according to the Part I-1, Section A.

Element Task	Program Measure of Success	Activity Required
Activity Measures Reporting	Permittee shall develop and retain Annual Reports for three years beyond permit term	As described in the specific activity listings, the permittee shall compile information necessary to provide in an annual compliance report. The metrics defined by "Measure of Success" shall be reported and kept for program assessment purposes. The permittee shall track the appropriate metrics through existing databases/spreadsheets to support staff assignments and budget development.
PEOPLE	Permittee shall, by the end of Permit Year two (2), summarize tracking procedures and results and include with annual report	The permittee shall develop and implement an activity tracking procedure to support consistent coordination and integrated reporting in a way that enables the variety of MSD staff to report their individual activities, target audiences, and related metric.
Illicit Discharge Trend Analysis	Permittee shall provide, during Permit Year Five (5) a report of trends and potential implications of IDDE investigations	The permittee shall perform a trend analysis of illicit discharge investigations and enforcement actions over the term of the permit.
Industrial/IDDE Compliance Actions Portal	Permittee shall, by the end of Permit Year three (3), report progress summarized in annual compliance demonstration report	The permittee shall develop strategies and establish a schedule to initiate a Compliance Actions Web Portal supplementing existing databases for functionality for internal use to expedite follow-up inspections of HRIFs.
Post-Construction Inspection Portal	Permittee, shall, by the end of Permit Year three (3), report progress summarized in annual compliance demonstration report	The permittee shall develop strategies and establish a schedule to initiate a Compliance Actions Web Portal for internal use to expedite follow-up inspections of private post-construction BMPs.
Six-Level Program Assessment Methodology	Permittee shall develop approaches enumerated by the end of Permit Year two (2) and implemented by the end of Permit Year four (4)	The permittee shall develop an approach to implement application portions of the six-level program EPA began advocating in 2008 to assist MS4 programs in identifying success and future areas of focus.

MSD Tables

[illegible]	[illegible]	[illegible] cont'd
Cooperative Annual Report	Permittee shall prepare and submit annual Report in a timely manner	The permittee shall coordinate and cooperate with co-permittees in compilation of the annual compliance demonstration reports.

Louisville Metro Government-Parks Tables

TABLE 1. PUBLIC EDUCATION, OUTREACH, PARTICIPATION, AND LEARNING EXPERIENCES (PEOPLE)		
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Newsletter	Permittee shall report the number of newsletter recipients	The permittee (Louisville Metro Government Parks) shall employ its monthly newsletter at least twice during the year to discuss pollution prevention information.

TABLE 2. ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)		
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Training session(s) for applicable staff	Permittee shall report number of staff trained per year	The permittee shall require staff to attend training on the recognition and reporting of illicit discharges as provided by MSD.

TABLE 3. CONSTRUCTION SITE STORMWATER RUNOFF CONTROL REQUIREMENTS (CS)		
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	**Frequency or Measure of Success**	**Activity Required**
City construction projects to follow construction site BMP requirements	Permittee shall summarize the contracts, city code officer inspection log of sites and include with the annual report	The permittee shall require all contracts specify compliance with Erosion Prevention and Sediment Control program requirements, and require that in-house projects inspected for compliance.

TABLE 4. POST-CONSTRUCTION (PC) STORMWATER RUNOFF CONTROL FOR NEW DEVELOPMENT AND REDEVELOPMENT		
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Tree/green space replacement to provide future ground cover	Permittee shall continue the Memorandum-for-record filed yearly by participating departments	The permittee shall maintain or increase the total amount of trees or other green-space/ground cover on Metro Government property, in accordance with appropriated resources.

Louisville Metro Government-Parks Tables

TABLE 5. GOOD HOUSEKEEPING/POLLUTION PREVENTION FOR MUNICIPAL OPERATIONS

Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.

Element Task	Frequency or Measure of Success	Activity Required
Municipal Facility SWPPPs	Permittee shall revise SWPPPs as needed and retain the revised SWPPPs on file	The permittee shall maintain and revise, as needed, MS4 SWPPPs for applicable "industrial" type Metro facilities.
Staff Training	Permittee shall retain copies of training records, and training references as provided	The permittee shall train the municipal facility staff on the SWPPP requirements, as needed.
Parks Ground Maintenance	Permittee shall continue the Memorandum-for-record filed yearly by department	The permittee shall develop and implement a Pesticide, Herbicide, and Fertilizer (PHF) Program which includes required certification of applicators, reporting on the number of certifications, procedures for the storage and proper use of PHFs and the corresponding measures to protect MS4s and receiving waters from the PHFs.

TABLE 6. [illegible] (M)

Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.

TABLE 7. PERFORMANCE ASSESSMENT AND REPORTING (PAR)

Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A. Louisville Metro Government - Parks shall submit its annual report to MSD for submittal to the Division of Water in the appropriate time frame developed by MSD.

Louisville Metro Government-Works & Assets Department Tables

TABLE 1. PUBLIC EDUCATION, SERVICES, PARTICIPATION, AND LEARNING ACTIVITIES (PESPLA)		
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Website	Permittee shall report the number of hits received on an annual basis and revise as needed	The permittee shall maintain the website, www.louisvilleky.gov, as it addresses littering, water quality, recycling, snow removal, pollution prevention, and air quality.
TABLE 2. ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)		
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Mapping	Permittee shall complete and submit to the Division of Water within twenty-four (24) months of the effective date of this permit.	The permittee shall develop, and maintain a storm-sewer system map, showing the location of all known major outfalls, as defined herein, and the names and location of all waters of the Commonwealth that receive discharges from those outfalls. If this mapping is completed using Geographical Information Systems (GIS) or Computer Aided Drafting (CAD) software, the permittee shall provide to the Division of Water, at a minimum, the MS4 boundary and the mapped infrastructure in either ESRI shape file formats (to include the .shp, .shx, and .dbf files) or geo-referenced AutoCAD drawings (.dwg file format).
Training session(s) for applicable staff	Permittee shall retain copies of MSD training records of staff and any training references as provided	The permittee shall require staff to attend training on the recognition and reporting of illicit discharges as provided by MSD.

Louisville Metro Government-Works & Assets Department Tables

TABLE 1. CONSTRUCTION SITE STORMWATER RUNOFF CONTROL REQUIREMENTS (CS)		
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	**Frequency or Measure of Success**	**Activity Required**
City construction projects to follow construction site BMP requirements	Permittee shall summarize the contracts, city code officer inspection log of sites and include with the annual report	The permittee shall require all contracts specify compliance with Erosion Prevention and Sediment Control program requirements, and require that in-house projects inspected for compliance.

TABLE 4. POST-CONSTRUCTION (PC) STORMWATER RUNOFF CONTROL FOR NEW DEVELOPMENT AND REDEVELOPMENT		
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Tree/green space replacement to provide future ground cover	Permittee shall maintain records of trees removed and planted by participating departments	The permittee shall maintain or increase the total amount of trees or other green-space/ground cover on Metro Government property, in accordance with appropriated resources.

TABLE 5. GOOD HOUSEKEEPING/POLLUTION PREVENTION FOR MUNICIPAL OPERATIONS		
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Municipal Facility SWPPPs	Permittee shall retain draft SWPPPs on file	The permittee shall maintain and revise, as needed, MS4 SWPPPs for applicable "industrial" type Metro facilities.
Staff Training	Permittee shall retain copies of training records, and training references as provided	The permittee shall train the municipal facility staff on the SWPPP requirements, as needed.
Metro Government Environmental Program	Permittee shall revise Environmental Program and Manual as needed	The permittee shall make recommendations to incorporate the Mayor's Green Initiative Strategies within the Metro Environmental Program Manual, as needed.

Louisville Metro Government-Works & Assets Department Tables

TABLE 6. [illegible] (M)
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.
TABLE 7. [illegible] (PAS)
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A. Louisville Metro Government - Works & Assets Department shall submit its annual report to MSD for submittal to the Division of Water in the appropriate time frame developed by MSD.

Louisville Metro Government- Metro Zoo Tables

TABLE 1. PUBLIC EDUCATION, OUTREACH, PARTICIPATION, AND LEARNING EXPERIENCES (PEOPLE)		
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Environmental Outreach Events	Permittee shall conduct an least four (4) environmental outreach events annually	The permittee shall conduct annual environmental outreach events such as the Earth Day event, night safaris, School-at-the-Zoo, and wetlands program or an effective equivalent.

TABLE 2. ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)		
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Training session(s) for applicable staff	Permittee shall retain copies of MSD training records and training references as provided	The permittee shall require staff to attend training on the recognition and reporting of illicit discharges as provided by MSD.
Louisville Zoo	Permittee shall retain project Reports and Documents	The permittee shall continue to partner with MSD on identified improvements to the drainage and monitoring systems, for control of flow and contamination of stormwater from the Zoo site.

TABLE 3. CONSTRUCTION SITE STORMWATER RUNOFF CONTROL REQUIREMENTS (CS)		
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	**Frequency or Measure of Success**	**Activity Required**
City construction projects to follow construction site BMP requirements	Permittee shall summarize the contracts, city code officer inspection log of sites and include with the annual report	The permittee shall require all contracts specify compliance with Erosion Prevention and Sediment Control program requirements, and require that in-house projects inspected for compliance.

Louisville Metro Government- Metro Zoo Tables

TABLE 4. POST-CONSTRUCTION (PC) STORMWATER RUNOFF CONTROL FOR NEW DEVELOPMENT AND REDEVELOPMENT
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.

TABLE 5. GOOD HOUSEKEEPING/POLLUTION PREVENTION FOR MUNICIPAL OPERATIONS		
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Municipal Facility SWPPPs	Permittee shall maintain and revise SWPPPs on file	The permittee shall maintain and revise, as needed, MS4 SWPPPs for applicable "industrial" type Metro facilities.
Staff Training	Permittee shall retain copies of training records, and training references as provided	The permittee shall train the municipal facility staff on the SWPPP requirements, as needed.
Metro Government Environmental Program	Permittee shall make recommendations to revisions of the Manual	The permittee shall make recommendations to incorporate the Mayor's Green Initiative Strategies within the Metro Environmental Program Manual, as needed.

TABLE 6. MONITORING (M)
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.

TABLE 7. REPORTING, TRACKING AND RECORDKEEPING (R&R)
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A. Louisville Metro Government - Metro Zoo shall submit its annual report to MSD for submittal to the Division of Water in the appropriate time frame developed by MSD.

City of Shively Tables

Minimum Control Measure 1: PUBLIC EDUCATION, OUTREACH, PARTICIPATION, AND LEARNING EXPERIENCES (PEOPLE)		
The City of Shively has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	Frequency or Measure of Success	Activity Required
Newsletters	Permittee shall develop and issue newsletters four (4) times per year	The permittee shall continue the quarterly newsletters that are mailed to its citizens and use this format or an effective equivalent to educate the public on the MS4 program, their impact on water quality, and public participation opportunities facilitated or sponsored by the permittee.
Public Education	Permittee shall revise the website to include educate the public starting in Permit Year two (2) and report the hits received in the Annual Report	The permittee shall revise the City's website to inform the citizens about the MS4 program, their impact on water quality, and public participation opportunities facilitated or sponsored by the permittee.
Public Participation Event	Permittee shall develop and implement an annual public participation event starting in Permit Year two (2)	The permittee shall develop and implement an annual public participation opportunity to educate the citizens about their impacts on water quality. This public participation activity may coincide with the Annual Shively Independence Festival and may consist of a booth with information for the citizens or an effective equivalent.
School Age Children	Permittee shall report any community service or environmentally beneficial projects the children performed and summarize these activities in the annual report	The permittee shall encourage and promote school groups to perform community service by facilitating activities such as, but not limited to, litter pick-up campaign, and storm drain labeling.

City of Shively Tables

TABLE 2. ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)		
The City of Shively has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Mapping	Permittee shall complete and submit to the Division of Water within twenty-four (24) months of the effective date of this permit.	The permittee shall develop, and maintain a storm-sewer system map, showing the location of all known major outfalls, as defined herein, and the names and location of all waters of the Commonwealth that receive discharges from those outfalls. If this mapping is completed using Geographical Information Systems (GIS) or Computer Aided Drafting (CAD) software, the permittee shall provide to the Division of Water, at a minimum, the MS4 boundary and the mapped infrastructure in either ESRI shape file formats (to include the .shp, .shx, and .dbf files) or geo-referenced AutoCAD drawings (.dwg file format).
Training session(s) for applicable staff	Permittee shall retain copies of MSD training records and training references as provided	The permittee shall require staff to attend training on the recognition and reporting of illicit discharges as provided by MSD.
Signage	Permittee shall enumerate the new signs and submit the information in the annual report	The permittee shall post additional "No Dumping" signs throughout Shively. The permittee shall track when new signs are posted and report in the annual report.
TABLE 3. CONSTRUCTION SITE STORMWATER RUNOFF CONTROL REQUIREMENTS (CS)		
The City of Shively has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Training	Permittee shall include the number of certified EPSC Inspectors and Date of Certification in the annual report	The permittee shall attend training on Erosion Prevention and Sediment Control procedures.

City of Shively Tables

TABLE 4. POLLUTION PREVENTION (PP) STORMWATER RUNOFF CONTROL FOR NEW DEVELOPMENT AND REDEVELOPMENT		
The City of Shively has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Green Infrastructure	Permittee shall complete project within twenty-four (24) months of the effective date of this permit.	The permittee shall work in collaboration with MSD to install a green restoration project in the City's infrastructure.

TABLE 5. GOOD HOUSEKEEPING/POLLUTION PREVENTION FOR MUNICIPAL OPERATIONS		
The City of Shively has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Property Cleanup	Permittee shall summarize the progress in property cleanup and include the summary in the annual report	The permittee shall continue to address cleanups on public property and shall add more workers and more public areas to be cleaned.

TABLE 6. MONITORING (M)
The City of Shively has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.

TABLE 7. PERFORMANCE ASSESSMENT AND REPORTING (PAR)
The City of Shively has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A. Shively shall submit its annual report to MSD for submittal to the Division of Water in the appropriate time frame developed by MSD.

City of St. Matthews

PART 2.1 PUBLIC EDUCATION (OUTREACH, PARTICIPATION, AND LIABILITY REDUCTIONS (PEOPLE)		
The City of St. Matthews has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Stormwater Education	Permittee shall feature a stormwater item at least four (4) times a year in the newsletter	The permittee shall use a dedicated Stormwater section in the City's newsletter. Each newsletter shall feature an article focused on informing the public on ways they impact water quality and on ways to improve water quality in their local waterbodies.
Website	Permittee shall report the number of hits in the annual report and update the website as needed	The permittee shall continue to develop and implement the "Green" menu on the website that directs the citizenry to a webpage dedicated to green solutions, including best management practices that may be implemented to improve water quality.
Pet Waste Pick-up	Permittee shall advertise at least one (1) time per year in Newsletter and Posted Public Signs	The permittee shall continue to implement the pet-waste cleanup program including the installation of signs at all major public parks and community centers to notify the public that they are responsible for the proper disposal of pet's waste, including the installation of signs, one bag dispenser and waste receptacles. The permittee shall evaluate the pet-waste cleanup program for the need for additional bag dispensers and additional advertisements in the newsletter.
Public Meetings	Permittee shall enumerate the number of public meetings where stormwater is discussed and summarize this for the annual report	The permittee shall inform the public of ways they can improve water quality before runoff exits their property during future Project Informational Meetings for Drainage Improvement Projects.
Business Owner Education	Permittee shall facilitate at least one (1) time per year education outreach for business owners	The permittee shall provide stormwater education information to its business owners in an effort to reduce pollution in the stormwater.
Leaf Pickup	Permittee shall advertise at least one (1) time per year	The permittee shall identify and advertise the time when leaf pickup will be conducted on particular streets, providing signs on designated streets to notify public of leaf pickup.

City of St. Matthews Tables

Element Task	Frequency or Measure of Success	Activity Required
Place Mat	Permittee shall dispense at least 200 placements per year	The permittee shall dispense at least 200 placemats from the EPA's Non-point Source Toolbox to local food establishments to use. The placemat contains information about stormwater and the general population's impact on water quality.
Green-up Program	Permittee shall advertise the Green-up program at least four (4) per year in Newsletter	The permittee shall continue its program to help eliminate asphalt or concrete parking pads/pull-offs located in existing right-of-ways. This program consists of residents who are willing to improve water quality can have the concrete parking pad/pull off removed and restored to natural turf at no expense to the property owner.
Cooperative Efforts (St. Matthews provides Appropriate or other non-local role)		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Jefferson County MS4 Workgroup-Communication	Permittee shall attend at least one (1) meeting per year	The permittee shall participate in the Jefferson County MS4 Co-Permittee Workgroup meetings discussing program progress, challenges, activity changes, shared activity requests, communication needs, and lessons learned.
TABLE 2. ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)		
The City of St. Matthews has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Mapping	Permittee shall complete and submit to the Division of Water within twenty-four (24) months of the effective date of this permit.	The permittee shall develop, and maintain a storm-sewer system map, showing the location of all known major outfalls, as defined herein, and the names and location of all waters of the Commonwealth that receive discharges from those outfalls. If this mapping is completed using Geographical Information Systems (GIS) or Computer Aided Drafting (CAD) software, the permittee shall provide to the Division of Water, at a minimum, the MS4 boundary and the mapped infrastructure in either ESRI shape file formats (to include the .shp, .shx, and .dbf files) or geo-referenced AutoCAD drawings (.dwg file format).
Hotline	Permittees shall identify and report those occurrences and summarize for submittal with the annual report	The permittee shall maintain a hotline for residents to report illegal dumping or illegal discharge into the storm sewer system.

City of St. Matthews Tables

TABLE 2. ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE) cont'd		
Training session(s) for applicable staff	Permittee shall report the dates and number of employees trained in the annual report.	The permittee shall require staff to attend training on the recognition and reporting of illicit discharges as provided by MSD.
Cooperative Efforts (St. Matthews provides supportive or other non-lead role)		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Inter-local agreement w/MSD	Permittee shall identify and report those occurrences	The permittee shall immediately report any illicit discharge to MSD and Metro Health Department.

TABLE 3. CONSTRUCTION SITE STORMWATER RUNOFF CONTROL REQUIREMENTS (CS)		
The City of St. Matthews has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	**Frequency or Measure of Success**	**Activity Required**
MSD Plan Approval	Permittee shall insure that MSD has approved and inspected applicable projects	The permittee has an interlocal agreement with MSD, where MSD administers approval and inspection on EPSC and Site Disturbance Permits for construction projects within the City. Prior to any approvals, MSD confirms that there are not any existing complaints or issues in the project area. The permittee shall continue the confirmation of complaints or issues in the project area.
Construction Oversight	Permittee shall report in the annual report the number of violations found and referred to MSD	The permittee shall provide construction oversight in addition to that provided through the inter-local agreement with Louisville MSD, including reporting any noted violation to Louisville MSD for enforcement.
Cooperative Efforts (St. Matthews provides supportive or other non-lead role)		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Inter-local agreement w/MSD for approval and inspection	Permittee shall include the number of certified EPSC Inspectors and Date of Certification in the annual report	The permittee shall continue to obtain EPSC & Site Disturbance Permits from MSD on applicable projects. The permittee shall continue to hold itself to the same EPSC standards as private contractors working within the City. For private construction, a city official inspects sites for compliance with the EPSC ordinance. Should a violation occur, the permittee shall request MSD's assistance in action to bring the site into compliance, if necessary.

City of St. Matthews Tables

TABLE 4. POST-CONSTRUCTION (PC) STORMWATER BEST CONTROLS FOR NEW DEVELOPMENT AND REDEVELOPMENT		
The City of St. Matthews has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	**Frequency or Measure of Success**	**Activity Required**
City of St. Matthews Tree Planting	Permittee shall record the purchase of trees and summarize for submittal in the annual report	The permittee shall plant approximately 75 two-inch diameter trees annually. The permittee shall not remove dead trees from wooded areas within the major City parks.
Rain Barrels & Rain Gardens	Permittee shall report the number of participants and submit with the annual report	The permittee shall continue to promote rain barrels and rain gardens within the City to help with reduce stormwater runoff through the "Green" menu on the City's website.
Master Plan	Permittee shall record updates and projects completed from Master Plan	The permittee has developed a drainage Master Plan to provide some form of drainage relief to its residents. The permittee shall continue to update the plan to reflect ongoing issues.
Inter-local agreement w/MSD for approval and inspection	Permittee shall identify & report those contractors operating without a permit	The permittee shall continue to obtain EPSC & Site Disturbance Permits from MSD on applicable projects. The permittee shall continue to hold itself to the same EPSC standards as private contractors working within the City. For private construction, a city official inspects sites for compliance with the EPSC ordinance. Should a violation occur, the permittee shall request MSD's assistance in action to bring the site into compliance, if necessary.

TABLE 5. GOOD HOUSEKEEPING/POLLUTION PREVENTION FOR MUNICIPAL OPERATIONS		
The City of St. Matthews has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Leaf Pickup	Permittee shall clean each residential street twice per leaf season	The permittee shall continue its program for the fall months to pick up leaves for those residents who bring the leaves to the edge of the street.
Beet Juice Additive	Permittee shall report the amount of material ordered.	The permittee is experimenting with adding beet juice to its salt. The beet juice lowers the temperature at which salt can be effective, and removes much of the caustic quality of salt brine.

City of St. Matthews Tables

TABLE 4. POST-CONSTRUCTION (PC) STORMWATER RUNOFF CONTROL FOR NEW DEVELOPMENT AND REDEVELOPMENT		
The City of St. Matthews has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	**Frequency or Measure of Success**	**Activity Required**
City of St. Matthews Tree Planting	Permittee shall record the purchase of trees and summarize for submittal in the annual report	The permittee shall plant approximately 75 two-inch diameter trees annually. The permittee shall not remove dead trees from wooded areas within the major City parks.
Rain Barrels & Rain Gardens	Permittee shall report the number of participants and submit with the annual report	The permittee shall continue to promote rain barrels and rain gardens within the City to help with reduce stormwater runoff through the "Green" menu on the City's website.
Master Plan	Permittee shall record updates and projects completed from Master Plan	The permittee has developed a drainage Master Plan to provide some form of drainage relief to its residents. The permittee shall continue to update the plan to reflect ongoing issues.
Inter-local agreement w/MSD for approval and inspection	Permittee shall identify & report those contractors operating without a permit	The permittee shall continue to obtain EPSC & Site Disturbance Permits from MSD on applicable projects. The permittee shall continue to hold itself to the same EPSC standards as private contractors working within the City. For private construction, a city official inspects sites for compliance with the EPSC ordinance. Should a violation occur, the permittee shall request MSD's assistance in action to bring the site into compliance, if necessary.

TABLE 5. GOOD HOUSEKEEPING/POLLUTION PREVENTION FOR MUNICIPAL OPERATIONS		
The City of St. Matthews has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Leaf Pickup	Permittee shall clean each residential street twice per leaf season	The permittee shall continue its program for the fall months to pick up leaves for those residents who bring the leaves to the edge of the street.
Beet Juice Additive	Permittee shall report the amount of material ordered.	The permittee is experimenting with adding beet juice to its salt. The beet juice lowers the temperature at which salt can be effective, and removes much of the caustic quality of salt brine.

City of St. Matthews Tables

TABLE 5. GOOD HOUSEKEEPING/POLLUTION PREVENTION FOR MUNICIPAL OPERATIONS (GH/PP)		
Element Task	Frequency or Measure of Success	Activity Required
Street Sweeping	Permittee shall sweep the curbed streets twice per year, as recorded on invoice	The permittee shall develop a program that will provide for street sweeping on priority curbed streets.
Pet Waste Removal	Permittee shall report occurrence of replacing bags	The permittee shall coordinate with local officials to install signs and bags in major City-owned public parks for pet waste removal. Receptacles shall be placed statically placed to allow for disposal.
Rain Barrels & Rain Gardens	Permittee shall report the number of participants	The permittee shall research a plan to provide rain barrel and rain garden education in an effort to reduce stormwater runoff from private residences. In addition, the permittee shall research an easy way for residents to purchase the necessary materials.
Replacing Existing Open Throat Yard Drains	Permittee shall report the number of replacements, goal is to have residential basins removed by 2018	The permittee shall devise a program to eliminate the open throat yard drains found in residential areas, in an effort to reduce the amount of sediment introduced to the MS4.
Green-up Program	Permittee shall report the number of replacements	The permittee shall look at the alternatives for providing a better way to promote the program and remove existing impervious pull-offs in order to restore the ground back to a natural state.
Stormwater Best Management Practices Plan	Permittee shall document the revisions throughout the year	The permittee has a Stormwater Best Management Practices Plan for their Maintenance and Construction Facilities. This document is an evolving one; the permittee shall make revisions on an as-needed basis.
Separate Storm Sewer System Mapping	Permittee shall document the revisions throughout the year	The permittee is in the process of devising a system to show all of their storm sewer systems in electronic format.

TABLE 6. MONITORING (M)
The City of St. Matthews has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.

TABLE 7. PERFORMANCE ASSESSMENT AND REPORTING (PAR)
The City of St. Matthews has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A. St. Matthews shall submit its annual report to MSD for submittal to the Division of Water in the appropriate time frame developed by MSD.

City of Jeffersontown Tables

TABLE 1: PUBLIC EDUCATION, OUTREACH, PARTICIPATION, AND LEARNING EXPERIENCES (PEOPLE)

The City of Jeffersontown has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.

Element Task	Frequency or Measure of Success	Activity Required
Public Education Programs	Permittee shall provide records of at least six (6) newsletters published per year with articles describing "green" activities being supported or promoted by the city of Jeffersontown to be supplied in the annual report	The permittee shall continue to issue its bimonthly newsletter that made information regarding public services and participation opportunities available to the public and disseminates information through the Jeffersontown website, www.jeffersontownky.com. The newsletter included articles on recycling and yard waste as well as the pollution prevention activity for collection of mercury thermometers. The permittee shall be expanding the "Spruce Up Jeffersontown" program to include public education to the effects of liter, trash and illegal dumping. It will also provide beautification efforts to promote a healthy lifestyle and balance between the environment and everyday living. It will educate the community on erosion and sediment control, floodplains and floodways, pollution of streams and water quality efforts to protect wildlife and the human element. This expanded program will be called "Jeffersontown Green Scene".
"Spruce up Jeffersontown"	Permittee shall provide clean-up materials for clean-up events, report summary of events in the annual report	The permittee shall provide public participation activities for youth organizations, civic clubs, and residents of Jeffersontown such as "Spruce up Jeffersontown" where the permittee supplies the necessary items, such as garbage bags and the permittee shall be responsible for proper disposal of collected debris.
Litter Control	Permittee shall provide monthly inspections of City to gauge success of program and report summary of inspections in the annual report	The permittee shall continue to provide litter abatement to reduce the trash into local waterbodies. The permittee may choose to continue utilizing work release programs to maintain a level of standard of litter abatement, or an effective equivalent.
Internal Training of City officials and employees	Permittee shall conduct monthly educational meetings, and make material available to all employees and provide a summary of these educational meetings in the annual report	The permittee is required to continue the training of the City's Mayor, City Administrator and Maintenance Director by attending MS4 presentations or an effective equivalent. The permittee shall continue to provide brown bag luncheons of new trends and programs that could benefit the City and community or an effective equivalent. The permittee shall make educational materials available to employees concerning the prevention of stormwater pollution.

City of Jeffersontown Tables

Element Task	Frequency or Measure of Success	Activity Required
External Training	Permittee shall, in Permit Year two (2), develop and conduct annual spring mobile workshop-"Stormwater Anatomy 101"	The permittee shall develop educational material and worksheet program that will be used to engage students. The permittee has developed a bike/walking master plan that addressed goals and objectives as well as policy issues relative to floodplains, erosion and sediment control and the impact to streams and drainage ways. This bike/walking trail will be used to conduct education training series or an effective equivalent shall be developed.

Element Task	Frequency or Measure of Success	Activity Required
Kentucky Stormwater Association (KSA)	Permittee shall participate in at least 75% of regular KSA meetings	The permittee or co-permittee shall attend meetings or presentations discussing various MS4 programs and meeting topics/presentations as applicable, such as the MS4 Workgroup Meetings or an effective equivalent.
Kentucky Transportation Cabinet (KYTC)- Public Education Material	Permittee shall use the applicable materials to educate the citizenry	The permittee shall use the KYTC Toolkit materials for education, if applicable, or an effective equivalent.
Jeffersontown - Coalition of Neighborhoods	Permittee shall report activities and programs participated and/or coordinated starting in Permit Year two (2)	The permittee shall continue to coordinate and assist in the implementation of a variety of community events focused on litter control, community beautification and neighborhood stormwater management issues. The permittee shall promote and encourage the integration of stormwater quality themes and topics identified in the PEOPLE plan

The City of Jeffersontown has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.

Element Task	Frequency or Measure of Success	Activity Required
Mapping	Permittee shall complete and submit to the Division of Water within twenty-four (24) months of the effective date of this permit.	The permittee shall develop, and maintain a storm-sewer system map, showing the location of all known major outfalls, as defined herein, and the names and location of all waters of the Commonwealth that receive discharges from those outfalls. If this mapping is completed using Geographical Information Systems (GIS) or Computer Aided Drafting (CAD) software, the permittee shall provide to the Division of Water, at a minimum, the MS4 boundary and the mapped infrastructure in either ESRI shape file formats (to include the .shp, .shx, and .dbf files) or geo-referenced AutoCAD drawings (.dwg file format).

City of Jeffersontown Tables

TABLE 2. ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE) cont'd		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Illicit Discharge/Illegal Dumping Ordinance	Permittee shall prepare annual reports by various complaint activities and develop PEOPLE to fit need starting in Permit Year two (2).	The permittee shall continue to enforce its illegal dumping ordinance and post signs that prohibit dumping at locations that are problem areas. The permittee shall also continue to provide a first line quick response system used to track complaints and concerns from the community in an effort to minimize the response time to various community issues. The permittee shall also continue to perform site inspections of various known dumping sites in an effort to provide and improvement enforcement of ordinance. This effort minimizes the impact of the illegal dumping on stormwater quality.
Provide education on Illicit Discharge Detection and Elimination	Permittee shall develop and implement targeted educational materials	The permittee shall provide education on illicit discharges such as proper disposal of leaf debris, and other illicit discharges that have an impact on stormwater quality. The permittee shall use it monthly newsletter, City's website, or general notices sent home with school children or an effective equivalent.
Cooperative Efforts (Jeffersontown provides supportive or other non-lead role)		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Co-permittee	Permittee shall prepare findings/solutions report at each meeting	The permittee shall attend quarterly meetings to learn what other co-permittees are encountering and work towards cohesive solutions county-wide.
TABLE 3. CONSTRUCTION SITE STORMWATER RUNOFF CONTROL REQUIREMENTS (CS)		
The City of Jeffersontown has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Jeffersontown/MSD Partnership	Permittee shall attend/coordinate quarterly program meetings with MSD to partner of projects	The permittee has an inter-local agreement with MSD to perform certain Construction Site Runoff program tasks. While MSD performs the Erosion Prevention and Sediment Control (EPSC), as a co-permittee, Jeffersontown shall continue to educate Team Leaders and other key staff in EPSC so that issues can be mitigated as soon as possible. The permittee shall continue to attend quarterly program meetings to be educated on the MS4 program and other stormwater related programs that are occurring in Jefferson County.
Erosion Prevention and Sediment Control (EPSC) Plan	Permittee shall design training handouts for all staff and general public starting in Permit Year two (2)	Starting in Permit Year two (2), the permittee shall develop an educational handout that will highlight the basic requirements of EPSC practices of Jeffersontown development activity as well as educating the public on ways they can make a difference as they go about their everyday lives.

City of Jeffersontown Tables

Element Task	Frequency or Measure of Success	Activity Required
Scheduled Inspections and Maintenance of BMPs	Starting in Permit Year two (2), the Permittee shall utilize a standardized checklist that will document compliance	The permittee shall inspect construction sites to ensure that the EPSC Ordinance is being followed by utilizing a standardized checklist.
Cooperative Efforts (Jeffersontown provides support or other non-lead role)		
Construction Development Plan Process	Beginning in Permit Year two (2), the Permittee shall review and update the guidance document and make it publicly available	The permittee shall review and update, as needed, guidance materials identifying the process that developers must follow to obtain related construction permits, including process flow charts and checklists.
Collaborative Guidance and Training	Permittee shall report cooperative activities in the annual report beginning in Permit Year two (2)	The permittee shall work with MSD to educate design engineers on various construction site stormwater runoff controls and standards that are required to be incorporated into the site construction documents.
TABLE 4. POST-CONSTRUCTION (PC) STORMWATER RUNOFF CONTROL FOR NEW DEVELOPMENT AND REDEVELOPMENT		
The City of Jeffersontown has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	Frequency or Measure of Success	Activity Required
Pilot BMP Projects	Beginning in Permit Year two (2), the Permittee shall provide a checklist of each development activity that qualifies for review and provide copies to the Planning Director for incorporation into the development file	The permittee shall continue to provide oversight for the following ongoing projects or an effective equivalent. During the last MS4 permit term, the City of Jeffersontown was required to complete a minimum of three BMP Pilot Projects. Firstly, Jeffersontown implemented a no-mow forest restoration area on a steep slope of Veteran's Park above Chenoweth Run. Also, the wooded riparian buffer along Chenoweth Run is protected in City easements. Lastly, approximately 80% of City grass channels have at least a ten-foot buffer strip, which filters runoff before it reaches the stream.

City of Jeffersontown Tables

TABLE 4: POST-CONSTRUCTION (PC) STORMWATER RUNOFF CONTROL FOR NEW DEVELOPMENT AND REDEVELOPMENT cont'd		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Build-Upon Area Reductions	Permittee shall continue enforcement of Cornerstone 2020	Cornerstone 2020 is a comprehensive plan with details on how Louisville-Jefferson County's metro government will be changing over the next 20 years with an estimated population boon of 60,000 people added to the area. The plan encompasses the environment, transportation, commerce, and overall quality of life for the citizens of Louisville. Jeffersontown has adopted the provisions of Cornerstone 2020. The permittee shall continue the enforcement of the Cornerstone 2020's water quality provisions or an effective equivalent.
Source Controls	Permittee shall develop a quarterly checklist to document compliance	The permittee shall continue to enforce the HMPC plans that have been approved. These plans include, but are not limited to, salt storage areas and refueling areas are to be covered and all dumpsters located within Jeffersontown must be covered and fenced. The permittee shall continue to evaluate these point source areas for possible runoff using a quarterly checklist to document compliance.
Cooperative Efforts (Jeffersontown provides supportive or other non-lead role)		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Collaborative Guidance and Training	In Permit Year two (2), the Permittee shall produce quarterly reports to track success of educational material and runoff designs	The permittee shall develop a post-construction run-off control checklist that will be incorporated into the construction approval process whereby each contractor will be required to document compliance with current standards at bond release or final approval.
TABLE 5: GOOD HOUSEKEEPING/POLLUTION PREVENTION FOR MUNICIPAL OPERATIONS		
The City of Jeffersontown has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Street Maintenance	Permittee shall perform quarterly inspections of maintenance efforts to gauge success	The permittee shall continue to follow the EPSC requirements during its street maintenance activity and incorporate additional BMPs during general street maintenance as needed.
Street Sweeping	Permittee shall perform quarterly inspections of maintenance efforts to gauge success	The permittee shall continue the street sweeping activities, except in winter months, to reduce the amount of trash and debris from the roadways.

City of Jeffersontown Tables

[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	Activity Required
Catch Basins	In Permit Year three (3), the Permittee shall develop a map of all catch basins along with direction of flow	The permittee shall continue to map and identify all City-maintained catch basins and inlets, determining direction of flow and drainage course. The permittee shall continue to implement the FROG No Dumping! Drains to our creeks' program, in collaboration with MSD, or an effective equivalent.
Storm Sewer Cleaning	In Permit Year three (3), the Permittee shall create a bi-annual checklist of all storm sewer systems.	The permittee shall continue to vacuum storm sewers, as needed. The permittee shall also develop bi-annual (spring/fall) inspection standard for all drainage easements and stormwater channels within Jeffersontown.
Channel Maintenance	Permittee shall create a bi-annual checklist of all stormwater channels and ditches	The permittee shall continue to maintain concrete channels on an as-needed basis. The permittee shall continue to maintain grass channels on a regular schedule. Proper disposal of debris removed from drainage channels shall be maintained.
Pollution Prevention for De-icing	Permittee shall perform inspections annually	The permittee shall perform annual inspections on de-icing equipment and continue to calibrate the salt spreader as needed.
BMP Inspection and Maintenance	Permittee shall continue to Train key staff within Public Works and use of a detailed inspection report	The permittee shall continue to inspect and maintain the Good Housekeeping/Pollution Prevention BMPs employed by the City. The permittee shall utilize a checklist in detailing the inspections.
Pollution Prevention for Herbicides and Pesticides	Permittee shall maintain employee licensure	The permittee continue to use properly licensed staff for the application of herbicides and pesticides.
Continuation of Existing Programs	In Permit Year two (2), the Permittee shall move towards larger recycling city-wide	The permittee shall continue to hire a contractor to collect municipal waste, yard waste, and recyclables weekly or have an effective equivalent. The permittee shall expand the "Spruce Up Jeffersontown" program to include public education to the effects of litter, trash, and illegal dumping on stormwater quality. It will educate the community on erosion and sediment control, floodplains and floodway, pollution of streams and water quality efforts to protect wildlife and the human element or an effective equivalent.

City of Jeffersontown Tables

TABLE 5. GOOD HOUSEKEEPING/POLLUTION PREVENTION FOR MUNICIPAL OPERATIONS cont'd		
Cooperative Efforts (Jeffersontown provides supportive or other non-lead role)		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Stormwater Pollution Prevention Plans for Co-permittee Operations	Permittee shall attend regular meetings to maintain consistency	As requested by co-permittees, the permittee shall provide periodic peer review of various stormwater pollution prevention plans and procedures to help identify opportunities to improve the effectiveness of the plans and implementation. The permittee shall provide a collaborative effort to manage stormwater issues across all co-permittees throughout the county.
TABLE 6. MONITORING (M)		
The City of Jeffersontown has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
TABLE 7. PERFORMANCE ASSESSMENT AND REPORTING (PAR)		
The City of Jeffersontown has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A. The City of Jeffersontown shall submit its annual report to MSD for submittal to the Division of Water in the appropriate time frame developed by MSD.		

City of Anchorage Tables

Minimum Task	Frequency or Measure of Success	Activity Required
TASK 1: PUBLIC EDUCATION, OUTREACH, PARTICIPATION, AND LEARNING EXPERIENCE (PEOPLE)		
The City of Anchorage has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Communication to Anchorage residents	Permittee shall provide the number of announcements (via newspaper, website, special events or community meetings) sent to the residents of Anchorage in the annual report	The permittee shall utilize the city newspaper, website, special events, and community meetings or an effective equivalent to communicate to the residents of Anchorage stormwater quality issues or concerns.
Educate Construction Industry Stakeholders	Permittee shall provide the number of builders, developers and contractors educated on the annual report	The permittee shall educate developers, builders, and contractors, in general, at the time they seek permits, on the requirements for stormwater retention and encourage architects, developers, and design teams to look for creative green infrastructure methods (i.e. rain gardens, rain barrels, and green roofs, etc.) to diminish stormwater runoff.
Green Infrastructure Educational Products and Projects	Permittee shall provide the number of MSD Rain Garden Handbooks distributed, and the resulting rain gardens installed on the annual report	The permittee shall facilitate educational opportunities by distributing MSD Rain Garden Handbook; notifying residents of demonstration projects including new rain gardens at local developments; and encourage use of the new Anchorage Trail Wetlands Area to demonstrate to both school children and adults the impact of stormwater quality or an effective equivalent.
Educate City Officials	Permittee shall provide documentation of the meetings where the Mayor and the City Council where updated and advised of MS4 related information, events, and issues at least 4 times per year in the annual report	The permittee shall update and advise the Mayor and City Council of MS4-related information, events, and issues.

City of Anchorage Tables

TABLE 1. PUBLIC EDUCATION, OUTREACH, PARTICIPATION, AND LEARNING EXPERIENCES (PEOPLE) cont'd		
Cooperative Efforts (Anchorage provides supportive or other non-lead roles)		
Element Task	**Frequency or Measure of Success**	**Activity Required**
MS4 Co-permittee Meetings	Permittee shall Participate in meetings	The permittee shall participate in MSD sponsored MS4 Co-permittee meetings to share information and lessons learned.
TABLE 2. ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)		
The City of Anchorage has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Mapping	Permittee shall complete and submit to the Division of Water within twenty-four (24) months of the effective date of this permit.	The permittee shall develop, and maintain a storm-sewer system map, showing the location of all known major outfalls, as defined herein, and the names and location of all waters of the Commonwealth that receive discharges from those outfalls. If this mapping is completed using Geographical Information Systems (GIS) or Computer Aided Drafting (CAD) software, the permittee shall provide to the Division of Water, at a minimum, the MS4 boundary and the mapped infrastructure in either ESRI shape file formats (to include the .shp, .shx, and .dbf files) or geo-referenced AutoCAD drawings (.dwg file format).
No Dumping Decals	Permittee shall provide the number of new decals displayed drains and catch basins, and the decals that were replaced, provide a summary for the annual report	The permittee shall maintain decals on all drains and catch basins to deter illicit dumping.
Training session(s) for applicable staff	Permittee shall retain copies of MSD training records and training references as provided	The permittee shall require staff to attend training on the recognition and reporting of illicit discharges as provided by MSD.

City of Anchorage Tables

Part 2. Illicit Discharge Detection and Elimination (IDDE)		
Cooperative Efforts (Anchorage provides supportive or other non-lead role)		
Element Task	Frequency or Measure of Success	Activity Required
Inter-local Agreement with MSD	Permittee shall provide the number of reports of IDDE issues to MSD and the actions taken by MSD to address the issue. Provide a summary for the annual report	The permittee shall report any IDDE problems directly to MSD.

Part 3. Construction Site Stormwater Runoff Control Requirements (CS)		
The City of Anchorage has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	Frequency or Measure of Success	Activity Required
Contractors/ Construction Activities	Permittee shall provide the number of inspectors with proper training in the annual report	The permittee shall require contractors to show proof of MSD's EPSC Certification and the plan for the development's containment.
Cooperative Efforts (Anchorage provides supportive or other non-lead role)		
Element Task	Frequency or Measure of Success	Activity Required
Inter-local Agreement with MSD	Permittee shall encourage no increase in stormwater runoff from development site through the use of BMPs	The permittee shall review MSD approvals of development for stormwater retention/detention controls.
MSD Enforcement	Permittee shall record of violations and reports	The permittee shall notify MSD of any violations of MSD approved stormwater drainage plan and any other violations of water quality.

City of Anchorage Tables

TABLE 4. POST-CONSTRUCTION (PC) STORMWATER RUNOFF CONTROL FOR NEW DEVELOPMENT AND REDEVELOPMENT		
The City of Anchorage has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	**Frequency or Measure of Success**	**Activity Required**
FAR Moratorium Ordinance	Permittee shall provide the number of Zoning Compliance Certifications issued in the annual report	The permittee has in place a moratorium on floor areas rations (FAR) for residential lots in Anchorage. The moratorium reduces the allowable living area of a house from previously allowable. This moratorium reduces the amount of impervious surface coming from each lot.
Proposed Impervious Surface Ordinance	Study completed, the Permittee shall report the actions discussed in annual report to DOW	The permittee is studying a limit of impervious surface for new buildings on residential lots. The permittee shall report the findings of this study to the Division of Water in the annual report.

TABLE 5. GOOD HOUSEKEEPING/POLLUTION PREVENTION (GH/PP) PROGRAMS FOR MUNICIPAL OPERATIONS		
The City of Anchorage has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	**Frequency or Measure of Success**	**Activity Required**
Street Maintenance	Permittee shall sweep site after work performed	When repairing roadways, the permittee shall continue to sweep up and properly dispose all remaining unused material.
Street Sweeping	Permittee shall provide litter abatement records and inspections summary in annual report	The permittee shall continue to sweep streets and properly dispose collected debris.
Drainage Channel Maintenance	Permittees shall provide the number of inspections of channels and culverts in annual report	The permittee shall continue the practice of vacuuming and clearing channels and culverts on city's Right-of-Ways.
Storm sewer cleaning	Permittee shall provide the number of inspections of storm sewers and catch basins in annual report	The permittee shall continue to inspect storm sewers and catch basins following large rain events, and shall continue to clean the storm sewers and catch basins on an as-needed basis.
De-icing Activities	Permittee shall provide amount applied each year in annual report	The permittee shall continue to plow snow and to apply brine in an effort to reduce the amount of salt that is applied during snow events. The permittee shall also adjust salt spreaders to minimize overspray as needed.

City of Anchorage Tables

[illegible]	[illegible]	[illegible]
Vehicle washing	Permittee shall provide the number of times the containment pit was cleaned out in the annual report	The permittee shall continue to wash City's vehicles that are heavily soiled in the firehouse bay that has a containment pit to capture the dirt and grime.

[illegible]
The City of Anchorage has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.

[illegible]
The City of Anchorage has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A. The City of Anchorage shall submit its annual report to MSD for submittal to the Division of Water in the appropriate time frame developed by MSD.

PART III. MONITORING AND REPORTING

A. MONITORING PROGRAM REQUIREMENTS

1. The quality of the streams receiving MS4 discharges in Jefferson County shall continue to be monitored to assess the water quality of the streams and to identify potential water quality impairments. This shall be accomplished by implementing the program elements in Table 7 for MSD, which include characterization data collection for watershed management programs.

2. MSD and/or its co-permittees will continue or maintain several facets of its current sampling program:

   a. **Every Two years** - Biological sampling and habitat analysis shall continue to include: algae, fish and benthic macro invertebrates for at least 25 Long Term Monitoring Network (LTMN) locations.

   b. **Quarterly** - Sampling and analysis shall continue on a quarterly basis for at least 25 LTMN locations. The List is as follows:

      Total Suspended Solids (TSS)
      Total Dissolved Solids (TDS)
      Fecal Coliform
      E. coli
      Biochemical Oxygen Demand (BOD5)
      Chemical Oxygen Demand (COD)
      Lead, Total Recoverable
      Cadmium, Total Recoverable
      Copper, Total Recoverable
      Zinc, Total Recoverable
      Dissolved Phosphorus
      Total Phosphorus
      Total Ammonia Nitrogen (as N)
      Total Kjeldahl Nitrogen (as N)
      Nitrate plus Nitrite Nitrogen (as N)
      Total Hardness

B. REPORTING REQUIREMENTS FOR MONITORING PROGRAM

1. The permittee shall submit a stormwater monitoring report with the Annual Report under Part III, Paragraph D of this permit. This report shall include:

   a. Status of implementation of the monitoring program;

   b. Map(s) showing monitoring station locations and narrative site descriptions, including watershed size;

   c. Raw data/results, methods of evaluating the data, graphical summaries of the data; and

   d. All monitoring data/results shall be submitted electronically. Monitoring program implementation status, location maps and selected/representative graphical summaries will be provided in the Annual Report.

2. The fifth Annual Report will also include a comprehensive monitoring program assessment. This assessment will include the following:

   a. A trend analysis will evaluate the changes that have taken place in each long-term monitoring network (LTMN) location during the permit cycle (Years 1 through 5);

   b. An evaluation for concentrated monitoring efforts to focus on hot-spots;

   c. Conduct flow monitoring at select sites;

d. Assess the effectiveness of stormwater program objectives;

e. An evaluation of the effectiveness of structural and non-structural BMPs using the monitoring data from the permit period; and

f. An evaluation of the monitoring program, which will be used to help formulate tasks and objectives for the next permit cycle.

3. In accordance with 40 CFR 122.26(d) (2) (iii) (D), the permittee shall operate and maintain a Long Term Monitoring Network (LTMN) consisting of at least 25 locations serving as collection of representative data for the term of the permit. The permittee shall describe the location of the LTMN locations explaining why the locations are representative, the frequency of sampling, parameters to be sampled, and a description of the sampling equipment.

4. Sampling methodology shall be according to the EPA stormwater application regulations at 40 CFR 122.26.

5. Monitoring must be conducted according to test procedures approved under 40 CFR 136, unless other test procedures have been specified, by KDOW and confirmed by the MSD and/or co-permittees.

C. OUTFALL MAPPING

In accordance with 40 CFR 122.26(d) (2) (iii) (C), the permittee shall provide the location of all known major outfalls. For the purposes of this permit a "major outfall" is defined as follows:

1. A pipe (or closed conveyance) system with a cross-sectional area equal to or greater than 7.07 square feet (e.g., a single circular pipe system, with an inside diameter of 36 inches or greater); if applicable.

2. A single conveyance other than a pipe, such as an open channel ditch, which is associated with a drainage area of more than 50 acres; if applicable.

3. A pipe (or closed conveyance) system, draining "industrial-zoned land use," with a cross-sectional area equal to or greater than 0.79 square feet (e.g., a single circular pipe system, an inside diameter of 12 inches or greater); or if applicable.

4. A single conveyance other than a pipe, such as an open channel ditch, which is associated with an "industrial-zoned land use" drainage area of more than 2 acres; if applicable.

D. ANNUAL REPORTING REQUIREMENTS

The permittee shall prepare an annual system-wide report to be submitted no later than September 30th of the year following the period covered by the report. The first Annual Report shall cover the period beginning on July 1, 2010 through June 30, 2011; and September 30th annually thereafter. The Annual Report shall include but not be limited to:

1. A summary of monitoring data accumulated during the report year.

2. An overall evaluation of the SWQMP developments and progress including: major findings such as water quality improvements or degradation, major accomplishments, overall program strengths/ weaknesses; and future direction of program.

3. Brief discussion the implementation of program elements listed in the tables 1-8 in Section II.F.

4. Status of the implementation and proposed changes to the SWQMP to include assessment of controls and specific improvements or degradation to water quality.

5. Summary of inspections and enforcement actions for regulatory programs.

6. Status of expenditures and budget for the present year and the next permit year.

7. The permittee shall submit the original annual report to:

Kentucky Division of Water
Surface Water Permits Branch
200 Fair Oaks Lane, 4th Floor
Frankfort, Kentucky 40601

E. CERTIFICATION

All applications, reports, or information submitted to the Division of Water (DOW) shall be signed and certified pursuant to State and U.S. EPA regulations. Each report shall contain the following completed declaration:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on the day of__, month, year.
(Signature) (Title)"

F. REOPENER CLAUSE

This permit shall be modified, or alternatively revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under 401 KAR 5:050 through 5:085, if the effluent standard or limitation so issued or approved:

1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or

2. Controls any pollutant not limited in the permit.

The permit as modified or reissued under this paragraph shall also contain any other requirements of KRS Chapter 224 when applicable.

PART IV. STANDARD CONDITIONS FOR KPDES PERMIT

The permittee is also advised that applicable KPDES permit conditions in KPDES regulation 401 KAR 5:065, Section 1, will apply to all discharges authorized by this permit.

This permit has been issued under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits or licenses required by this Cabinet and other state, federal, and local agencies.

Appendix A

MSD LOCCODE	DESCR	Additional Description	USGS Site #	USGS Location Name	USGS Stream Site Description
Reference Reach					
ECBCB001	Cedar Creek @ SR 1442	Cedar Creek of Salt River in Bullitt County (reference reach)	3297800	CEDAR CREEK AT HWY 1442 NEAR SHEPHERDSVILLE, KY	Latitude 37°59'28", Longitude 85°38'28" NAD83 Bullitt County, Kentucky, Hydrologic Unit 05140102 Drainage area: 12.1 square miles
MS4 AREA					
ECCCC001	Cedar CK @ Thixton RD	Cedar Creek of Floyds Fork in Jefferson County ~4 miles downstream of CCWQTC.	3298250	CEDAR CREEK AT THIXTON ROAD NEAR LOUISVILLE, KY	Latitude 38°04'45", Longitude 85°36'58" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140102 Drainage area: 11.1 square miles
EFFCR001	CHEN Run #1 @ Gelhaus Ln	Chenoweth Run of Floyds Fork ~3 miles downstream of JTWQTC Effluent	3298150	CHENOWETH RUN AT GELHAUS LANE NEAR FERN CREEK, KY	Latitude 38°09'36", Longitude 85°32'32" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140102 Drainage area: 11.6 square miles
EFFCR002	CHEN Run #1 @ Ruckriegel PKWY	Chenoweth Run of Floyds Fork 1200 feet upstream of JTWQTC Effluent	3298135	CHENOWETH RUN AT RUCKRIEGAL PARKWAY, KY	Latitude 38°11'41", Longitude 85°33'26" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140102 Drainage area: 5.47 square miles
EFFFF003	Floyds FK@ Old Taylorsville RD	Floyds Fork downstream of FFWQTC	3298000	FLOYDS FORK AT FISHERVILLE, KY	Latitude 38°11'18", Longitude 85°27'37" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140102 Drainage area: 138.0 square miles Datum of gage: 542.60 feet above sea level NGVD29.
EFFFF002	Floyds FK @ Bardstown RD	Floyds Fork ~1 mile before leaving Jefferson County	3298200	FLOYDS FORK NEAR MT WASHINGTON, KY	Latitude 38°05'07", Longitude 85°33'18" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140102 Drainage area: 213.0 square miles
EGCGC001	Goose CK @ Old Westport RD	Goose Creek ~6 miles upstream of confluence with the Ohio River	3292474	GOOSE CREEK AT OLD WESTPORT RD NR ST MATTHEWS, KY	Latitude 38°16'33", Longitude 85°36'22" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140101 Drainage area: 6.0 square miles Datum of gage: 552.15 feet above sea level NGVD29.
EGCGC002	Goose CK @ US HWY 42	Goose Creek ~2 miles upstream of confluence with the Ohio River	3292475	GOOSE CREEK AT US HWY 42 NEAR GLENVIEW ACRES, KY	Latitude 38°18'12", Longitude 85°37'41" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140101 Drainage area: 10.1 square miles
EGCLG001	Little Goose CK @ US Highway 42	Little Goose Creek ~2.5 miles upstream of confluence with Goose Ck @ the Ohio River	3292480	LITTLE GOOSE CREEK NEAR HARRODS CREEK, KY	Latitude 38°18'45", Longitude 85°37'33" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140101 Drainage area: 5.8 square miles Datum of gage: 459.93 feet above sea level NGVD29.
EHCWP002	Wolf Pen Branch @ 8200 WPB RD2	Wolf Pen Branch ~1 mile upstream of confluence with Harrods Creek	None	(MSD- only location)	
EMCMC001	Mill CK @ Orell RD	Mill Creek less than 2 miles from the confluence with the Ohio River	3294570	MILL CREEK AT ORELL ROAD NEAR LOUISVILLE, KY	Latitude 38°04'41", Longitude 85°53'24" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140101 Drainage area: 13.5 square miles

Appendix A

EMCMX001	MX @ Old Cane Run RD	Mill Creek Cutoff ~1 1/2 miles upstream of the confluence with the Ohio River. Sonde removed due to low flow.	3294550	MILL CREEK CUTOFF NEAR LOUISVILLE, KY	Latitude 38°10'39", Longitude 85°52'01" Jefferson County, Kentucky Hydrologic Unit Code 05140101 NAD27 Drainage area 24.4 square miles Contributing drainage area 24.4 square miles
EMIMI002	MIFBGC @ Old Cannons LN	Middle Fork Beargrass Creek upstream of Seneca and Cherokee Parks	3293000	M FK BEARGRASS CR AT OLD CANNONS LN AT LOUISVILLE,	Latitude 38°14'14", Longitude 85°39'53" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140101 Drainage area: 18.9 square miles Contributing drainage area: 18.4 square miles, Datum of gage: 476.70 feet above sea level NGVD29.
EMIMI009	MIFBGC @ Browns LN	Middle Fork Beargrass Creek downstream of Beechwood Village	None	(MSD- only location)	
EMIMI010	MIFBGC @ Lexington RD 2	Middle Fork Beargrass Creek at downstream end of Cherokee Park, in Sewer Separation Area/MS4-CSS	3293500	M FK BEARGRASS CR AT LEXINGTON RD AT LOUISVILLE,KY	Latitude 38°15'01", Longitude 85°43'00" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140101 Drainage area: 24.8 square miles
ESFSF001	SFBGC @ Trevillian Way	South Fork Beargrass Creek upstream of CSS area	3292500	SOUTH FORK BEARGRASS CREEK AT LOUISVILLE, KY	Latitude 38°12'41", Longitude 85°42'09" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140101 Drainage area: 17.2 square miles Datum of gage: 448.60 feet above sea level NGVD29.
EMUMU001	MUFBGC @ Mockingbird Val RD	Muddy Fork Beargrass Creek ~1.5 miles upstream of confluence with the Main Stem BGC.	3293530	MUDDY FK AT MOCKINGBIRD VALLEY RD AT LOUISVILLE,KY	Latitude 38°16'35", Longitude 85°41'37" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140101 Drainage area: 6.2 square miles
EPCBC001	Brier CK.@ Bear Camp RD	Brier Creek ~2 miles upstream of confluence with Pond Creek	3302050	BRIER CREEK AT PENDELTON ROAD NEAR LOUISVILLE, KY	Latitude 38°02'52", Longitude 85°51'26" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140102 Drainage area: 4.0 square miles
EPCFC001	Fern CK @ Old Bardstown RD	Fern Creek headwaters upstream of Wildwood lakes	3301900	FERN CREEK AT OLD BARDSTOWN RD AT LOUISVILLE, KY	Latitude 38°10'32", Longitude 85°36'55" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140102 Drainage area: 3.5 square miles
EPCND001	Northern DT@ Preston HWY	Northern Ditch ~5 miles upstream of confluence with Pond Creek	3301940	NORTHERN DITCH AT OKOLONA, KY	Latitude 38°09'01", Longitude 85°41'37" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140102 Drainage area: 11.1 square miles Datum of gage: 447.50 feet above sea level NGVD29.
EPCPC001	Pond CK@ Manslick RD	Pond Creek ~15 1/2 miles upstream of confluence with the Ohio River	3302000	POND CREEK NEAR LOUISVILLE, KY	Latitude 38°07'11", Longitude 85°47'45" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140102 Drainage area: 64.0 square miles Datum of gage: 430.38 feet above sea level NGVD29.
EPCPC002	Pond CK @ Pendleton RD	Pond Creek ~6 1/2 miles upstream of confluence with the Ohio River	3302030	POND CREEK AT PENDLETON ROAD NEAR LOUISVILLE, KY	Latitude 38°03'15", Longitude 85°52'18" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140102 Drainage area: 80.3 square miles
EPRPR001	Penn Run @ Mt. Washington Rd	Pennsylvania Run ~1/2 mile before leaving Jefferson County	3298300	PENNSLYVANIA RUN AT MT WASHINGTON RD NR LOUISVILLE	Latitude 38°05'15", Longitude 85°38'33" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140102 Drainage area: 6.4 square miles

Appendix A

Upstream Sites for MS4 Jurisdiction Background Monitoring					
EFFFF001	**Floyds FK @ Ash. AVE**	Floyds Fork upstream near Jefferson/Oldham County line.	3297900	FLOYDS FORK NEAR PEWEE VALLEY, KY	Latitude 38°17'07", Longitude 85°28'03" NAD27 Oldham County, Kentucky, Hydrologic Unit 05140102 Drainage area: 79.9 square miles Contributing drainage area: 79.9 square miles,
EHCHC001	**Harrods CK @Covered Bridge RD**	Harrods Creek upstream before entering Jefferson County from Oldham Co.	3292470	HARRODS CREEK AT HIGHWAY 329 NR GOSHEN, KY.	Latitude 38°21'42", Longitude 85°34'30" NAD27 Oldham County, Kentucky, Hydrologic Unit 05140101 Drainage area: 70.3 square miles Datum of gage: 439.70 feet above sea level NGVD29
Lower Beargrass downstream from MS4, in CSS impact area.					
ESFSF002	**SFBGC @ Schiller AV Ramp**	South Fork Beargrass Creek concrete conveyance channel in CSS area	3292550	S FK BEARGRASS CR AT WINTER AVE AT LOUISVILLE, KY	Latitude 38°14'04", Longitude 85°43'50" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140101 Drainage area: 22.6 square miles (No flow gage at this location)
ESFSF006	**SFBGC@ Brownsboro Road**	Main Stem Beargrass Creek upstream from Beargrass Creek Pump Station	None	(USGS Gage is located downstream from MSD sample collection site- see 3293510)	
ESFSF014	(Sonde only, no samples collected)	Mouth of Beargrass Creek @ Ohio River	3293510	BEARGRASS CREEK AT RIVER ROAD AT LOUISVILLE, KY	Latitude 38°16'01", Longitude 85°43'17" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140102 Drainage area: 60.1 square miles Datum of gage: 412.18 feet above sea level NGVD29.

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United States Environmental Protection Agency
Washington, D.C. 20460

Water Compliance Inspection Report

—Section A: National Data System Coding (i.e., PCS)

Transaction Code	NPDES	yr/mo/day	Inspection Type	Inspector	Fac Type
N	KYS000001	12/3/19	-	C	1

Remarks

Inspection Work Days	Facility Self-Monitoring Evaluation Rating	BI	QA	Reserved

Section B: Facility Data

Name and Location of Facility Inspected *(For industrial users discharging to POTW, also include POTW name and NPDES permit number)*

Louisville-Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville, KY 40203-1911

Entry Time/Date	Permit Effective Date
8:00 AM / 3/19/12	8/1/11
Exit Time/Date	**Permit Expiration Date**
3:50 PM / 3/22/12	7/31/16

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)
Brian Bingham / Regulatory Services Director / Louisville-Jefferson County Metropolitan Sewer District (MSD) 502-540-6106 / 502-649-3850
Steve Emly / Interim Chief Engineer / MSD /
Chad McCormick / MS4 Team Leader / 502-291-6049 (cell) / 502-569-2304

Name, Address of Responsible Official/Title/Phone and Fax Number

Brain Bingham / Regulatory Services Director / Louisville-Jefferson MSD / 502-540-6106 / 502-649-3850

Other Facility Data *(e.g., SIC NAICS, and other descriptive information)*

Mr. McCormick, URS Corporation, has acted as consultant to MSE for ~ five years in a full time capacity.

Section C: Areas Evaluated During Inspection *(Check only those areas evaluated)*

X	Permit		Self-Monitoring Program		Pretreatment	X	MS4
X	Records/Reports		Compliance Schedules		Pollution Prevention		
	Facility Site Review		Laboratory	X	Storm Water		
	Effluent/Receiving Waters		Operations & Maintenance		Combined Sewer Overflow		
	Flow Measurement		Sludge Handling/Disposal		Sanitary Sewer Overflow		

Section D: Summary of Findings/Comments

(Attach additional sheets of narrative and checklists, including Single Event Violation codes, as necessary)

SEV Codes	SEV Description
99999	
99999	
99999	
99999	

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers	Date
Jerry L. Whittum	SAIC/Kernersville/336-996-7846/336-996-7892	3/22/12
Signature of Management Q A Reviewer	Agency/Office/Phone and Fax Numbers	Date

Louisville-Jefferson County Metropolitan Sewer District
Louisville, Kentucky
Municipal Separate Storm Sewer System (MS4) Inspection Report
March 19 - 22, 2012

Prepared for:
EPA Region 4
61 Forsyth Street, S.W.
Atlanta, GA 30303-8960

Prepared by:
Science Applications International Corporation
416-B West Mountain Street
Kernersville, North Carolina 27284

Table of Contents

ATTACHMENTS

Attachment 1 – Industrial Inspection – All-Star Waste Disposal

Attachment 2 – Industrial Inspection – Con-way Freight

Attachment 3 – Municipal Operations Inspection – MSD Central Maintenance Facility

Attachment 4 – Co-permittee Municipal Operations Inspection – Jeffersonville Public Works

Attachment 5 – Construction Inspection – Magnolia Springs East

Attachment 6 – Construction Inspection – Norton Commons

Attachment 7 – Construction Inspection – River Road Interceptor

EXECUTIVE SUMMARY

Detailed findings from the Municipal Separate Storm Sewer System (MS4) inspection conducted at Louisville-Jefferson County Metropolitan Sewer District (MSD), Louisville, Kentucky, on March 19 – 22, 2012, are presented in this report. This section contains an overview of the findings.

The MSD and the co-permittees have not ensured the inter-local agreements (Memorandum of Understanding) have been maintained in effect. The MSD continues to provide illicit discharge detection and elimination (IDDE), industrial stormwater, and construction stormwater inspection and enforcement activities in the co-permittee areas of Jefferson County, but does not have the legal authority to operate those programs in the co-permittee jurisdictions. The Kentucky Pollutant Discharge Elimination System (KPDES) MS4 Permit directs that in the absence of an inter-local agreement, it shall be assumed that each co-permittee shall be responsible for the full duties and responsibilities enumerated in the KPDES MS4 Permit (Permit) for their respective communities/departments. If the MSD continues to implement the IDDE, industrial stormwater, and construction stormwater inspections and enforcement for the co-permittees, it must ensure it has the ability to execute the legal authority specified in the Permit.

The MSD MS4 program was not required to implement an industrial component until the current Permit became effective on August 11, 2011. The Permit required the MSD to develop industrial inspection and enforcement procedures. The MSD developed a preliminary but not complete set of inspection procedures. The MSD must develop a complete set of industrial and commercial facility inspection procedures.

The Permit required the MSD to develop and implement criteria and/or procedures for conducting construction site inspections within 60 days of the Permit effective date of August 11, 2011. The MSD has not developed and implemented a formalized set of criteria and/or procedures for conducting construction site inspections.

Louisville-Jefferson County MSD, Louisville, Kentucky
Municipal Separate Storm Sewer System (MS4) Audit

1.0 INTRODUCTION

At the request of the U.S. Environmental Protection Agency (EPA) Region 4, Mr. Jerry Whittum of Science Applications International Corporation conducted an inspection of the Louisville-Jefferson County Metropolitan Sewer District (MSD) Municipal Separate Storm Sewer System (MS4) program on March 19 – 22, 2012. Discharges from the MSD's MS4 are regulated by Kentucky Pollutant Discharge Elimination System (KPDES) Permit No. KYS000001 issued by the Kentucky Division of Water (KDOW) and effective from August 1, 2011 to July 31, 2016. The KPDES Permit includes six co-permittees including: Louisville-Jefferson County Metropolitan Sewer District, Louisville-Jefferson County Metropolitan Government, City of Anchorage, City of Jeffersontown, City of Shively, and City of St. Matthews. Ms. Abigail Rains, KDOW, attended the inspection.

The purpose of the inspection was to determine the MSD's and the co-permittees' compliance with requirements in the KPDES Permit No. KYS000001 (KPDES Permit) and with the MSD's implementation and enforcement of its Stormwater Quality Management Plan (SWQMP), dated October 2008. Per the KPDES Permit Part I.B.3, the permittee is required to develop, implement, enforce and update, as needed, a Stormwater Quality Management Plan (SWQMP) which shall include controls intended to reduce the discharge of pollutants from its MS4 conveyances consistent with 40 CFR 122.34. This inspection specifically focused on the MSD's illicit discharge detection and elimination (IDDE) program, industrial and municipal facilities runoff program, and construction site runoff program. The field inspection reports are included as attachments to this report. The inspection was not intended to be a comprehensive evaluation of all components and requirements associated with the entire MS4 program.

The primary MS4 program representative was Mr. Charles McCormick, MSD MS4 Stormwater Program Consultant, URS Corporation.

The following activities were performed:

March 19, 2012	
8:00 AM – Opening conference 10:00 AM – IDDE program interviews and records review	1:00 PM – IDDE program interviews and records review 3:30 PM – Industrial program interviews and records review
March 20, 2012	
8:00 AM – Industrial program interviews and records review	12:30 PM – Industrial field visits
March 21, 2012	

8:00 AM – Construction program interviews and records review	12:30 PM – Construction field visits
March 22, 2012	
8:00 AM – Co-permittee industrial and construction visits	1:30 PM – Final records review 3:00 PM – Closing conference

2.0 GENERAL FINDINGS

2.1 Permit Coverage Areas and Responsibilities

The MSD and each of the co-permittees consisting of the Louisville-Jefferson County Metropolitan Government (Metro), City of Anchorage (Anchorage), City of Jeffersontown (Jeffersontown), City of Shively (Shively), and City of St. Matthews (St. Matthews) entered into individual inter-local agreements in 1998 and 1999. The inter-local agreements established the role and responsibilities of MSD and each entity in fulfilling the KPDES Permit obligations. Accordingly, the MSD was responsible for the:

- investigation and enforcement of illicit discharges;
- hazardous material plans and inspections of industrial and commercial properties;
- construction oversight including plan review and site inspection, and;
- administration of the Hazardous Materials Ordinance, Wastewater/Stormwater Discharge Regulations, Louisville/Jefferson County Erosion Prevention and Sediment Control Ordinance, and Floodplain Management Ordinance.

MSD was also responsible for the: program for monitoring and laboratory analysis, Annual Report compilation and preparation, and leading the education and outreach efforts, but they are not in the scope of this report and therefore not addressed.

The inter-local agreements had at the most a 10-year duration and therefore have not been in effect since 2009 at the latest. The MSD has continued to implement the IDDE program in the jurisdictional areas of each co-permittee. However, the KPDES Permit states that in the absence of an inter-local agreement, it shall be assumed that each co-permittee shall be responsible for the full duties, including those of the MSD as shown above, and the responsibilities enumerated in the KPDES Permit tables for each respective jurisdiction.

> ***Permit Requirements:*** *The MSD and the co-permittees must ensure that either inter-local agreements be developed and entered into by the MSD and each co-permittee, or each co-permittee must assume the full duties and responsibilities as required in the KPDES Permit Part I.A.2.1 and the applicable KPDES Permit tables (found in pages II-9 through II-61 of the Permit).*

2.2 Illicit Discharge Detection Elimination Program

2.2.1 Ensure Legal Authority

The MSD developed a Hazardous Materials Ordinance (HMO) in response to several large spills in the 1980s. The HMO was last modified in 2007. The MSD's Sewer Use Ordinance (SUO) includes a Wastewater/Stormwater Discharge Regulations (WDR). The WDR was updated January 23, 2012 in response to the requirements in the current KPDES Permit that was issued on August 11, 2011. The MSD uses the HMO and WDR to provide the authority to implement

and enforce the illicit discharge detection and elimination (IDDE) program. The authority to conduct and enforce the IDDE program primarily resides in the WDR Articles 5 and 6.

The legal authority allowing the MSD to implement the IDDE program in the jurisdictions of the co-permittees was previously provided through inter-local agreements. The inter-local agreements granted the legal authority to the MSD to protect the MS4 by prohibiting illicit discharges, controlling the discharge of spills and illegal dumping, requiring compliance with regulations, and carrying out inspections. The MSD has continued to implement the IDDE program in the jurisdictional areas of each co-permittee, but does not have the legal authority to do so.

> ***Permit Requirements:*** *The MSD and the co-permittees must ensure that either inter-local agreements be developed and entered into by the MSD and each co-permittee to ensure adequate legal authority to implement and enforce the IDDE program, or each co-permittee must assume the full duties and responsibilities as required in the KPDES Permit Part I.A.2.1. If the MSD continues to implement the IDDE program in the co-permittee jurisdictions, it must ensure it has the ability to execute the legal authority as specified in the KPDES Permit Part II.A.*

2.2.2 Develop, Implement, and Enforce Illicit Discharge Detection and Elimination Program

The MSD continues to develop, implement, and enforce an IDDE program that includes the spill response procedures outlined in Section 95.07 of the Metro Code of Ordinance. The IDDE program is implemented through the MSD Industrial Waste Department (IWD). The IWD Emergency Response Pretreatment Inspectors provide a 24-hour, 7-day a week response to illicit discharge/hazardous material spill reports received through Metrocall, the MSD Customer Service hotline, and webpage reporting. The MSD plans to continue to implement and enforce the illicit discharge and hazardous materials spill response program to protect the MS4. In the October 2011 Annual Report, the MSD reported that 125 illicit discharge/hazardous material investigations had been conducted.

All MSD employees (i.e., including the building receptionist) are required to annually attend the Sewer Overflow Response Protocol (SORP) training which includes illicit discharge field observations, who to call, and how to protect the MS4. The MSD field staff are required to attend the SORP training quarterly. Attendance of the training is not required for co-permittee staff whose daily routine includes travel around the cities or county (e.g., police, streets, wastewater, and sanitation).

The MSD continues to implement a dry weather screening program. During the previous KPDES Permit cycle, the MSD screened over 5,700 outfalls. Record of the dry weather screening is maintained in a Hansen database. The MSD Board is slated to review a plan for approval of a contract for dry weather screening thermal imaging to be conducted this spring. The MSD IWD staff will conduct follow-up investigations of "hot spots" identified through the

thermal imaging. MSD is required to conduct dry-weather screenings at ninety percent of the large industrial outfalls of industrial facilities once every two years. Due to the KPDES Permit effective date of August 1, 2011, the MSD is not yet required to complete this action. While the MSD has developed a basic process for conducting a dry weather screening, it has not developed a Standard Operating Procedure (SOP) to ensure consistency in follow-up investigation after identifying an illicit discharge through the dry weather screening process.

The MSD develop and submitted an IDDE Plan dated January 25, 2012, to the KDOW within 6 months of the effective date of the current KPDES Permit. The IDDE Plan discusses the various aspects of illicit discharges, their investigation and elimination, and includes the enforcement procedures from the MSD WDR.

Approximately 20 years ago, the MSD developed a Motor Vehicle Accident (MVA) Mitigation Kit Program. The ongoing program consists of packaging a 5-gallon bucket filled with bags of absorbent for use by the local fire departments and emergency response teams. Following use, the MVA Kits are returned to the MSD to be cleaned up, repackaged, and reissued.

The MSD established procedures and implements a program for requiring and receiving Stormwater Pollution Prevention Plans (SWPPPs) from qualifying construction sites.

The MSD has incorporated the IDDE Identification SWPPP training module into the SORP training.

The MSD continues to work with KDOW and they have a good relationship of assisting each other. The MSD is available to accompany KDOW on IDDE inspections.

> ***Program Recommendation:*** *The MSD and the co-permittees should:*
> *1) include a requirement for SORP training of all co-permittee staff whose daily routine includes travel around the cities or county when the inter-local agreements are rewritten and adopted; and*
> *2) develop a SOP for the illicit discharge investigation process.*

2.2.3 Develop Sewer System Map

The MSD has developed MS4 mapping in a Geographic Information System (GIS) and accessed through a Hansen database. The mapping includes the outfalls, jurisdictional boundaries, pipes and their history, force mains, manholes, valves, pump stations, storage basins, catch basins, open channels and swales, appurtenances, waters of the commonwealth, and floodplains. The MSD believes all of the outfalls have been located through walking and aerial observation activities. The locations of industries and their hazardous materials have been added to the GIS mapping. The Hansen database is used to maintain MS4 work orders.

The co-permittees are at various stages of development of system mapping. The mapping is required to be completed and submitted to the KDOW within twenty-four (24) months of the KPDES Permit effective date of August 1, 2011.

- Metro MS4 mapping is conducted by the MSD and is complete.
- Anchorage has only two neighborhoods that have MS4 piping and the remainder is open drainage. Anchorage uses its pipe construction plans as its system mapping.
- Jeffersontown has some old mapping, but generally has not developed its MS4 mapping. Jeffersontown recently issued a request for proposal (RFP) to hire a consultant to update the MS4 mapping. The RFP requires the mapping be completed by the deadline specified in the KPDES Permit.
- Shivley has developed a list of its 36-inch and larger pipes, but not developed MS4 mapping.
- St. Matthews has not developed MS4 mapping, but is beginning to map the piping and locate its outfalls.

No permit requirements or program recommendations.

2.2.4 Non-Stormwater Discharges

WDR Article 2 prohibits the discharge of non-stormwater pollutants to the MSD public sewers. The Article also prohibits the discharge of black or gray water, chlorinated water, and other polluted waters to the MS4. WDR Article 5 identifies the allowable non-stormwater discharges such as groundwater infiltration and air conditioner condensate to the MS4, and Article 6 provides enforcement actions to be implemented in the event of an illicit discharge to the MS4.

No permit requirements or program recommendations.

2.2.5 Develop and Implement a Non-stormwater Discharge and Illegal Dumping Plan

The MSD developed an Illicit Discharge Detection and Elimination Plan (IDDE Plan), dated January 25, 2012. The IDDE Plan includes topics such as identifying, investigating, documenting, enforcing and eliminating illicit discharges and illegal connections. The MSD implements the IDDE Plan through the IWD Emergency Response Pretreatment Inspector staff.

No permit requirements or program recommendations.

2.2.6 Inform Public of Illegal Discharge and Improper Disposal Hazards

The MSD provides illegal discharge and improper disposal hazards information to the public and businesses through various means to include advertisements in local newspapers and magazines, direct mail, and the MSD area-targeted bill stuffers and door hangers. The MSD employees are informed in the mandatory SORP training.

No permit requirements or program recommendations.

2.2.7 Evaluate, Prepare, and Implement a Sanitary Sewer Exfiltration Response Plan

The MSD is implementing a Sanitary Sewer Evaluation Survey (SSES). The MSD evaluated 222 miles of sanitary sewer during the first round of the SSES and is now tasked with surveying 10% of its sanitary sewers annually. Sanitary sewer exfiltration has not been observed or evidenced at any system location. Accordingly, the MSD has not prepared and implemented a Sanitary Sewer Exfiltration Response Plan. The MSD does plan to prepare and implement a plan as required by the KPDES Permit if exfiltration is observed or evidenced.

The MSD conducts quarterly and annual SORP training. The training includes actions to stop the overflow, abate the pollutants, provide notification, report the incident, and implement clean up.

No permit requirements or program recommendations.

2.3 Industrial Stormwater Program

2.3.1 Ensure Legal Authority

The MSD uses the HMO and WDR to provide the authority to implement and enforce the industrial stormwater program. The MSD's authority to implement its industrial pretreatment program resides in the WDR, which is also the legal authority employed for implementing the industrial stormwater program.

The legal authority allowing the MSD to implement the industrial stormwater program in the jurisdictions of the co-permittees was previously provided through inter-local agreements. The inter-local agreements granted the legal authority to the MSD to control stormwater discharges to the MS4, control industrial spill discharges and illegal dumping, require compliance with regulations, and carry out inspections. The MSD has continued to implement the industrial stormwater program in the jurisdictional areas of each co-permittee, but does not have the legal authority to do so.

> ***Permit Requirements:*** *The MSD and the co-permittees must ensure that either inter-local agreements be developed and entered into by the MSD and each co-permittee to ensure adequate legal authority to implement and enforce the industrial stormwater program, or each co-permittee must assume the full duties and responsibilities as required in the KPDES Permit Part I.A.2.1. If the MSD continues to implement the industrial stormwater program in the co-permittee jurisdictions, it must ensure it has the ability to execute the legal authority as specified in the KPDES Permit Part II.A.*

2.3.2 Develop and Implement an Industrial Stormwater Program

The MSD MS4 program was not required to implement an industrial component until the current KPDES Permit became effective on August 11, 2011. The MSD is now developing, implementing, and enforcing a stormwater program through the MSD IWD to control discharges from industrial and high-risk commercial facilities. The MSD IWD Emergency Response

Pretreatment Inspectors are tasked with conducting the industrial stormwater inspections and initiating the enforcement.

As a part of the industrial stormwater program implementation, stormwater construction site plans for new development, redevelopment, and plumbing system reviews are routinely referred to the IWD for evaluation prior to approval. The evaluation allows the IWD staff to ensure industrial stormwater concerns will be properly addressed by the other MSD departments.

No permit requirements or program recommendations.

2.3.3 Develop an Industrial and Commercial Inventory

The MSD developed the HMO in the 1980s and began developing an inventory of industrial and commercial facilities that manufacture, store, or use hazardous materials. The industrial HMO inventory was the basis for the stormwater industrial and commercial inventory and includes approximately 1,300 facilities. All sites having a Hazardous Materials (spill) Prevention Control (HMPC) Plan are included in the inventory. The inventory includes facilities such as all gasoline service stations, hospitals, medical laboratories, pest exterminators, and all municipal facilities that manufacture, store, or use hazardous materials to include six wastewater treatment plants, the Central Maintenance Facility, etc. The list is augmented with potential industrial users identified through the MSD industrial pretreatment program. The inventory is kept in a Hansen database and is continuously updated. The inventory includes each facility's name, address, contact person, the MSD identification number, permit(s), inventory, sampling point(s), outfall location(s), and other information.

Program Recommendation:
The MSD should evaluate the facilities on the stormwater industrial inventory list and identify as inactive the businesses that do not present an industrial stormwater concern (e.g., no chemicals are manufactured, stored, or used outside). The MSD's industrial inventory is difficult to work with because it includes many very low/no-risk businesses such as construction companies and cleaning services. The MSD should at a minimum sort the inventory and inactivate the businesses that are obvious low/no risk facilities.

2.3.4 Develop Industrial and Commercial Inventory Risk Factors

The MSD has developed factors to categorize the industrial and commercial facilities as high, medium, and low risk. The factors used for categorization are facility type, past inspection or enforcement results, proximity to receiving waters, potential pollutant sources on-site, and if there has been an incident involving stormwater in the last three years.

No permit requirements or program recommendations.

2.3.5 Compare High Risk Industrial Facility Datasets

The MSD conducted a comparison of multiple data sets to include the North American Industry Classification System (NAICS), Standard Industrial Classification (SIC) codes, Toxic Release Inventory (TRI) data, and the MSD pretreatment industrial user inventory, to augment the original hazardous material industrial inventory.

No permit requirements or program recommendations.

2.3.6 Update High Risk Industrial Facility Dataset

The MSD is in the process of analyzing the industrial inventory to ensure all appropriate industrial and commercial facilities are included. The MSD plans to continue to update the High Risk industrial list as required during the current KPDES Permit term.

No permit requirements or program recommendations.

2.3.7 Inspect Industrial Facilities

Currently, the IWD Emergency Response Pretreatment Inspectors are being field trained to implement the inspection and enforcement portion of the industrial stormwater program. A MSD consultant is accompanying the Emergency Response Pretreatment Inspectors on some industrial inspections to oversee the process and provide guidance. Formal MS4 Industrial Facility Inspection Training (MIFIT) was provided for the IWD staff in November 2011. In general, the IWD Emergency Response Pretreatment Inspectors conduct thorough inspections. During the MS4 inspection, the MS4 inspection team observed the MSD IWD inspectors conduct industrial inspections of All-Star Waste Disposal, Con-way Freight, the MSD Central Maintenance Facility municipal operations, and Jeffersonville Public Works municipal operations industrial sites. Detailed summaries of these site visits are included in Attachments 1, 2, 3, and 4 respectively.

The Emergency Response Pretreatment Inspectors verify permit coverage under the KPDES Permit for industrial activities during the industrial and commercial facility inspections and as appropriate refer facilities in need of a permit to the KDOW. The Emergency Response Pretreatment Inspectors review the SWPPP on site during the inspection process. The inspection reports are maintained in both hard copy and in the Hansen database system.

The MSD plans to inspect all high and medium risk industrial and commercial facilities during 2012. After 2012, the MSD's intent is to inspect the facilities as required in the KPDES Permit.

The MSD intends to assist the KDOW with inspection of the Jefferson County KDOW stormwater-permitted facilities as requested.

Program Recommendation: *The MSD should establish a program for on-the-ground industrial/commercial inspection training to ensure consistency between the inspectors.*

The training could be patterned after the MSD's stormwater construction site inspector training.

2.3.8 Require Control Measures

The MSD will be required in Year 2 of the KPDES Permit to inspect high risk industrial and commercial facilities to ensure the implementation of control measures required by the MSD's industrial stormwater program. The MSD HMO requires the industrial and commercial facilities that manufacture, store, or use hazardous materials to submit a Hazardous Materials Control Plan detailing how they will respond in the event of a hazardous material spill.

The MSD has not developed standardized control measures for industries and commercial facilities. Currently, the MSD suggests the facility hire a consultant to evaluate the control needs and identify the appropriate control measure(s). The facility must comply with the MSD's control measure design standards.

No permit requirements or program recommendations.

2.3.9 Develop Inspection and Enforcement Procedures

The MSD MS4 program was not required to implement an industrial component until the current KPDES Permit became effective on August 11, 2011. Since that date, the MSD has developed industrial inspection and enforcement procedures. The industrial procedures are included in the Illicit Discharge Detection and Elimination Plan, Chapter 5, titled *Industrial Program*. The *Industrial Program* chapter contains preliminary but not complete industrial and commercial facility inspection procedures as anticipated by the KDOW. The MSD uses the HMO and WDR to provide the inspection and enforcement authority for the industrial and commercial facility program. The WDR contains an Enforcement Response Plan (ERP) that details the steps to be taken in an enforcement action. The ERP was developed from the EPA model plan.

While the IWD Emergency Response Pretreatment Inspectors are learning the industrial stormwater inspection process, they are very experienced in conducting hazardous material inspections and industrial pretreatment inspections. Under the hazardous material inspection program, the MSD has taken numerous successful enforcement actions.

- On November 29, 2011, under the stormwater industrial program, the MSD inspected Bluegrass Sealing & Striping in response to a complaint received that day of material blocking the MS4 catch basin. The inspector found large piles of used asphalt were blocking the stormwater flow to the MS4 and causing standing water. The inspector discovered staining to the grass downstream in the MS4. A Preliminary Response Report was required from the facility. On December 5, 2011, a Notice of Violation (NOV) was issued stating that a follow-up inspection would be conducted on January 6, 2012. The NOV identified an additional concern of oil sheens observed in the stormwater runoff. On approximately the date of the NOV, the facility had cleaned up the waste asphalt and ceased operations.

- On January 18, 2012, under the stormwater industrial program, the MSD inspected Premier Packaging and found cardboard waste in the MS4. The inspector issued a Field Correction Notice requiring clean-up and termination of the particulate matter discharge by March 1, 2012. On March 8, 2012, the inspector conducted a follow-up inspection and found the industry continued to discharge cardboard waste to the MS4. On March 20, 2012, the MSD issued an NOV requiring submittal of a written plan of action, and development of SOPs for each area of concern by March 26, 2012.

NOVs are issued by the MSD Emergency Response Pretreatment Administrator. Enforcement actions of greater magnitude than an NOV are passed on to the MSD environmental attorney for issuance and signed by the MSD Executive Director.

Permit Requirements: *The MSD must develop a complete set of criteria or procedures for site inspections and enforcement that addresses the implementation of enforcement activities as required in KPDES Permit Part II.B.3.h. The criteria or procedures must include standard operating procedures for conducting an inspection.*

Program Recommendation: *The MSD should either develop a stand-alone industrial document or re-title the Illicit Discharge Detection and Elimination Plan to also include Industrial Program.*

2.3.10 Develop and Distribute Outreach Materials

The MSD will be required in Year 2 of the KPDES Permit to develop and distribute outreach materials such as brochures and fact sheets to industrial and commercial facilities. The MSD intends to fulfill this requirement and is in the process of developing targeted brochures. The MSD hopes to establish seminars to be offered at least annually.

No permit requirements or program recommendations.

2.4 Construction Site Stormwater Runoff Control

2.4.1 Ensure Legal Authority

The legal authority to implement the construction stormwater program is provided in the Ordinance 186-07, officially cited as "Louisville/Jefferson County Erosion Prevention and Sediment Control Ordinance" and in Ordinance 125, officially sited as "Floodplain Management Ordinance." Ordinance 186-07 was readopted in 2007. The ordinances provide the authority to address stormwater quality for all construction sites of 2,000 square feet or greater and any construction site located within 50 feet of a solid or intermittent blue line stream as designated by the United States Geological Survey (USGS). While individual residential sites are typically not regulated by the MSD stormwater program, the MSD has the legal authority to require a Site Disturbance Permit for the site.

The legal authority to prohibit illicit discharges; control spills, dumping, and disposal of materials other than stormwater to the MS4; to require compliance with regulations, ordinances, and permits; and to carry out inspections and monitoring procedures in the jurisdictions of the co-permittees was previously provided through inter-local agreements. The inter-local agreements have not been in effect since 2009 at the latest. The MSD has continued to implement the construction site stormwater runoff control program in the jurisdictional areas of each co-permittee, but does not have the legal authority to do so. The KPDES Permit states that in the absence of an inter-local agreement, it shall be assumed that each co-permittee shall be responsible for the full duties, including those of the MSD as shown above, and the responsibilities enumerated in the KPDES Permit tables for each respective jurisdiction.

The MSD Development Plan/Review, Inspection and Enforcement inspectors have the authority to issue a Field Correction Notice (FCN) for non-compliance issues identified on a construction site. The inspector's process to issue a FCN is as follows:

- Record the finding in the field log.
- Upon completion of the physical site inspection, return to vehicle and complete a FCN on a field laptop computer.
- Email the FCN to the owner/operator and copy it to the Development Plan/Review, Inspection and Enforcement supervisor.

The owner/operator is given 24 hours to respond to the FCN and correct the non-compliance issue (unless sediment is leaving the site and in that situation the inspector may issue a Stop Work Order). After the 24-hour FCN correction response time, the inspector returns to the site to verify the non-compliance issue is corrected. The MSD has a history of issuing FCNs, returning to the site to ensure it has been corrected, and while there issuing the next FCN for a different non-compliance issue. The MSD Development Plan/Review, Inspection and Enforcement inspectors are "spinning their wheels" in repeatedly issuing FCNs, verifying correction, and issuing the next FCN to the same owner/operator for items such as silt fence not maintained and soil tracked to site streets. During the MS4 inspection field visit of Norton Commons, a second concern with the FCN process was noted in that an individual builder was observed to be digging a basement and hauling the soil from the development lot. Best Management Practices (BMPs) such as a perimeter silt fence and trackout pad had not been installed. The MSD Development Plan/Review, Inspection and Enforcement inspector's legal recourse only included issuing a FCN by email. The inspector could not issue a Stop Work Order because adverse impacts or off-site degradation had not occurred (see Attachment 6).

The KPDES Permit, Table 4 requires a summary of proposed legal authority changes by the end of KPDES Permit year one. Due to the KPDES Permit effective date of August 1, 2011, the MSD is not yet required to complete this action.

> ***Permit Requirements:*** *The MSD and the co-permittees must ensure that either inter-local agreements be developed and entered in to by the MSD and each co-permittee to ensure adequate legal authority to implement and enforce the construction stormwater*

program, or each co-permittee must assume the full duties and responsibilities as required in the KPDES Permit Part I.A.2.1.

Program Recommendation: *The MSD intends to revise its Ordinance 186-07, Louisville/Jefferson County Erosion Prevention and Sediment Control Ordinance by August 2012. The Ordinance 186-07 revision should include providing field inspectors with the authority necessary to ensure site compliance with BMP requirements identified in the approved site plan (i.e., no soil disturbance until preliminary BMPs are installed). The inspectors should have the authority to advance beyond a FCN and issue a Stop Work Order for repeated non-compliance on the same site or for repeated non-compliance by the same owner/operator on multiple sites.*

2.4.2 Develop, Implement, and Enforce a Construction Stormwater Program

The MSD has developed a construction stormwater program. The program is implemented and enforced through two MSD Engineering Division departments consisting of Design/Construction, Inspection and Enforcement and Development Plan/Review, Inspection and Enforcement. Through the efforts of both departments, the MSD inspects construction sites from pre-site visits (as appropriate) through follow-up to ensure a Notice of Termination is submitted at the end of the project.

Following construction site plan review and approval and issuance of a Site Disturbance Permit, the site is assigned to the Design/Construction, Inspection and Enforcement department for inspection surveillance during the infrastructure stage. That department's policy is to inspect each capital improvement project site daily and public sites at least every two weeks and after a 0.5-inch rain event in a 24-hour period. The inspectors issue FCNs for minor non-compliance issues, but conduct a co-inspection with the Development Plan/Review department staff prior to enforcement that exceeds a FCN.

At the completion of the construction site infrastructure stage and beginning of the vertical construction (building) stage, the site is assigned to the Development Plan/Review, Inspection and Enforcement department for inspection coverage. That department's policy is to inspect each site at least every two weeks, but it typically inspects each site weekly. "Hot spot" sites (those having a sensitive feature such as adjacent waters and slopes) are inspected after each 0.5-inch rain event in a 24-hour period. Construction site projects that are dormant for more than two years are inspected and if the site is stabilized, the permit is released. The site owner/contractor will have to submit a site plan for the plan review and permitting process prior to again commencing construction on a site with a released permit.

The MSD has developed an inspection checklist for use by the owner/operator when conducting self-inspections. The MSD inspectors in the Design/Construction, Inspection and Enforcement department use the owner/operator checklist as their inspection field document during each inspection. The Development Plan/Review, Inspection and Enforcement inspectors do not

routinely use an inspection checklist; rather they collect field notes that are typed into an electronic inspection report.

The KPDES Permit, Table 4 requires the MSD to conduct construction inspector refresher training annually and to report the date and number of attendees in the Annual Report. The MSD has not submitted an Annual Report while under the requirements of the KPDES Permit, effective date of August 1, 2011.

The MSD has ensured its inspection staff have received formal construction inspector training. All the MSD Development Plan/Review, Inspection and Enforcement department and Design/Construction, Inspection and Enforcement department inspectors are required to attend the construction site operator training annually. Each staff must also attend an additional, more intense training that is administered by the Development Plan/Review, Inspection and Enforcement department supervisor.

The Development Plan/Review, Inspection and Enforcement department and Design/Construction, Inspection and Enforcement department supervisors are Certified Professionals in Erosion Sediment Control (CPESC). Both department supervisors periodically observe some of their inspection staff as they conduct field inspections and provide informal training to the staff as needed.

The Development Plan/Review, Inspection and Enforcement department supervisor also provides formal monthly training events for construction site operators.

The KPDES Permit, Table 4 requires the MSD to provide at least three construction inspector training opportunities annually to local contractor inspectors and to provide the training date and number of attendees in the Annual Report. The MSD requires the contractor or on-site person responsible for a residential site regulated under a KDOW General Construction Permit to attend a Single Lot Residential Construction or Demolition training course. Upon completion of the training, the individual is certified and receives a certification card that is valid for three years. The MSD will not issue a Site Disturbance Permit for the applicable sites unless an actively certified individual is associated with the site. The MSD provides formal Single Lot Residential Construction or Demolition training events monthly at local public schools under the adult education program. At least one certified, card-carrying individual must be on the construction site during construction activities. Since inception of the training, including persons being recertified, over 1,000 individuals have attended the course. A copy of the training materials that includes erosion and sediment control requirements; permit requirements; and BMP design, installation, and maintenance is provided to each attendee. The MSD also regularly administers other construction stormwater training course events to include the Contractor Erosion and Sediment Control training course and a training course for external utility organization staff. Site contractors are required to pass an assessment conducted by the MSD. The MSD has not submitted an Annual Report while under the requirements of the KPDES Permit, effective date of August 1, 2011.

The KPDES Permit, Table 4 requires the MSD to hold at least one conference every other year beginning in KPDES Permit year one to coordinate program enforcement actions with Metro Inspections, Permits, and Licensing (IP&L) to support overall site compliance. The MSD has ongoing meetings with IP&L to discuss construction stormwater issues.

The KPDES Permit, Table 4 requires evaluation of all general permits by the end of KPDES Permit year three. Due to the KPDES Permit effective date of August 1, 2011, the MSD is not yet required to complete this action.

The KPDES Permit, Table 4 requires the MSD to hold meetings with at least 90% of the MSD's erosion and sediment control general permit holders at least every two years to confirm inter-agency communication of protocols; changes to standards, policies, and procedures; and BMP operation expectations. The MSD has developed and conducts training/meetings with Louisville Gas & Electric, Louisville Water Company, and Fishel (i.e., utility line contractor) within the past two years and those entities are due for recertification within the next six months.

> ***Program Recommendation:*** *The MSD should ensure that at least annually all the MSD inspectors be observed by supervisors as they conduct inspections and that the inspector receive informal field training as needed.*

2.4.2.i Develop, Implement Erosion and Sediment Control Best Management Practices
The MSD Ordinance 186-07 requires plans to demonstrate compliance with the standards and specifications set forth in the MSD's Design Manual, Standard Specifications and Standard Drawings. Ordinance 186-07 restricts construction commencement on the site until after erosion prevention and sediment control measures [BMPs] are installed.

The MSD has developed requirements for implementation of erosion and sediment control BMPs for construction sites. The MSD requires the construction site designer to use one of two BMP guidance sources when developing the site plans as follows: the MSD Design Manual, last updated August 2009, or Sedcad, a software program produced by the University of Kentucky. These guidance materials assist in selection of construction site BMPs and provide BMP operation and maintenance, appropriate site locations, and use criteria information. Additionally, the MSD has developed and implements guidelines for BMPs to be used on MSD capital improvement projects. Each contract for a capital improvement project identifies BMPs for use, and the related construction and maintenance guidance.

The MSD has developed several construction stormwater training courses that address BMPs. The trainings include the Non-PE Preparers course, Single Lot Residential Construction or Demolition course, Contractor Erosion and Sediment Control course, Home Builder course, and External Utility Organization course. The various training courses provide guidance on BMP selection, implementation, and appropriate usage. Individuals that prepare construction site plans are required to attend the Non-PE Preparers training.

No permit requirements or program recommendations.

2.4.2.ii Develop, Implement Erosion and Sediment Control Ordinance

The MSD has developed the Ordinance 186-07 (i.e., Louisville/Jefferson County Erosion Prevention and Sediment Control Ordinance) that was an amended and reenacted Chapter 159 of the Louisville/Jefferson County Metro Government Code of Ordinance. Ordinance 186-07 was approved by the council in September 2007. The ordinance requires erosion and sediment controls be implemented on construction sites before the site becomes active. The ordinance provides enforcement authority including: civil offence fines and other actions, Notice of Violation (NOV), Stop Work Order, Revocation of a Site Disturbance Permit, and Revocation of an operator's certification card (as discussed in 2.4.2 above).

No permit requirements or program recommendations.

2.4.2.iii Develop, Implement Requirements for Site Operators to Implement Erosion and Sediment Control BMPs

The MSD Ordinance 186-07 restricts construction commencement on the site until after erosion prevention and sediment control measures [BMPs] are installed. Ordinance 186-07 requires the permittee to conduct continuing inspections of the site control measures and to make any repairs or modifications necessary within 48 hours of the initial discovery of a BMP failure or a violation.

The KPDES Permit, Table 4 requires an update of the Design Manual and Standards Specifications by the end of KPDES Permit year one to address changes in the KDOW general construction permit. Accordingly, MSD is to update guidance materials to include topics of BMP selection, feasibility, design considerations, operation, maintenance, and inspection. Due to the KPDES Permit effective date of August 1, 2011, MSD is not yet required to complete this action.

Capital improvement projects contracted by the MSD contain language specifying stormwater BMP requirements in the RFPs and/or contracts. BMP inspection and maintenance requirements are also specified in the signed contracts.

No permit requirements or program recommendations.

2.4.2.iv Develop, Implement Site Plan Review Procedures

The MSD has developed and implements a site plan review process as directed in Ordinance 186-07. The MSD requires the developer/owner to develop and submit for review and approval a site plan for every construction site over 2,000 square feet. The site plans are submitted to and reviewed by the MSD Engineering Division Development Plan/Review department, Plan Review and Inspection Management section. Upon site plan approval, a Site Disturbance Permit will be issued.

The KPDES Permit, Table 4 requires the MSD to review plans in accordance with Ordinance 186-07 and to report the number of plans reviewed in the Annual Report. The Ordinance requires the MSD plan reviewers to ensure the construction site will have a design removal efficiency goal of 80% for total suspended solids from land disturbing activities through implementation of structural and non-structural BMPs. The MSD evaluates each site plan to ensure the site design and BMPs will be effective to retain 80% of the sediment on site during a 10-year, 24-hour storm event. The MSD has not submitted an Annual Report while under the requirements of the KPDES Permit, effective date of August 1, 2011.

Ordinance 186-07 provides the authority for the MSD to conduct pre-application meetings as needed. The MSD typically finds that a pre-application meeting is not necessary because of its training courses (i.e., Plan Preparer Erosion Prevention and Sediment Control BMP Discussion, Specific BMP Design Using the Training Manual, Plan Preparer Training for LWC, and EPSC Qualified Plan Preparer Training) and the familiarity of most developers and design engineers with the MSD site plan requirements.

The MSD KPDES Permit, Table 4 requires the MSD to offer at least two training events annually for plan preparers and reviewers starting in KPDES Permit year two. The MSD continues to offer the plan preparers training courses identified in the paragraph above. Due to the KPDES Permit effective date of August 1, 2011, the MSD is not yet required to complete this action.

The KPDES Permit, Table 4 requires the MSD to make plan development guidance documents available to the public. A summary of the guidance materials shall be included in the Annual Report. The MSD continues to offer plan preparer training to the public and provides the training materials to the attendees. The MSD has not submitted an Annual Report while under the requirements of the KPDES Permit, effective date of August 1, 2011.
During the plan review process, the plan is evaluated by other the MSD departments including Planning and Design Services (Metro Government) and Metro Public Works. The plan review staff use various checklists during the plan review process including: Preliminary Plan Review Checklist, Preliminary Plan Checklist, Site Plan Review Checklist, two Subdivision Review Checklists, and a Detention Basin Checklist. The plan review staff ensures standard conditions for the type of site are addressed in the site plan. Reviewer comments are written on the checklists, on the set of plans, typed as a Word file, and placed in the Hansen system. The plan with comments is returned to the developer/owner. Following revisions, the developer/owner resubmits the revised plan and the original plan with markups to the MSD for another review. The changes are noted in the Hansen site file. The MSD typically reviews a plan three times before it is approved. Upon approval, the plan is given to the Inspection and Enforcement staff.

The plan review process verifies the applicant has submitted a Notice of Intent (NOI) to be covered under the KDOW Construction General Permit as applicable and if an NOI has not been submitted, the site plan will not be approved. The developer/owner is informed of the need to submit a Notice of Termination (NOT) when finished with site soil disturbance. When the MSD

conducts its closing inspection of the site, the developer/owner is again informed of the need to submit an NOT.

The MSD capital improvement projects are not processed through the MSD plan review process used for private sites. The MSD Design/Construction, Inspection and Enforcement department, Design section conducts a project conception to develop the scope for the project. The RFP then identifies the project scope and directs the entities submitting proposal to comply with the MSD Design Manual for determination of site BMPs. The MSD reviews the project site plan throughout the construction process to ensure it complies with the construction and sediment control criteria. The MSD Design section staff use the Design Manual rather than a checklist for review of the project site plan. The MSD intends to begin transitioning to a process whereby the capital improvement project site plans will go through the same plan review process as private site plans.

The KPDES Permit, Table 4 requires an update of the Design Manual and Standards Specifications by the end of KPDES Permit year one to address changes in the KDOW general construction permit. Accordingly, the MSD is to update guidance materials to facilitate current technology use, local plan review/inspection requirements and related implications. Due to the KPDES Permit effective date of August 1, 2011, MSD is not yet required to complete this action.

No permit requirements or program recommendations.

2.4.2.v Develop, Implement Procedures to Receive Information from Public

The MSD has developed and implements a 24-hour phone and email customer service section to receive information from the public, including complaints. The customer service section routes the public information and/or complaint to the appropriate MSD department. While the public may contact the Design/Construction and Development Plan/Review departments directly, information from the public typically comes through the customer service section. Upon receipt of complaints from the public, the information is entered into the Hansen system where all related activity is tracked.

No permit requirements or program recommendations.

2.4.2.vi Develop, Implement Site Inspection and Enforcement Criteria/Procedures

The MSD Ordinance 186-07 provides enforcement officers and inspectors with the authority to inspect land disturbing activities, review inspection records, and review repairs and modifications made by the permittee.

The KPDES Permit, Table 4 requires the MSD to conduct inspections monthly or after 0.5-inch rain events with less frequent MSD oversight inspections of at least 90% of the active sites. The MSD is to report the number of inspections performed in the Annual Report. The MSD inspects all active construction sites of 2000 square feet or greater at least every two weeks and after each

0.5-inch rain event in a 24-hour period. The MSD has not submitted an Annual Report while under the requirements of the KPDES Permit, effective date of August 1, 2011.

The KPDES Permit, Table 4 requires the MSD to conduct routine inspections of active construction sites that have a reasonable potential to discharge to the MS4. The MSD is required to include a summary of the inspections and resulting enforcement actions in the Annual Report. The MSD must enforce existing ordinances and/or regulations to limit construction stormwater impacts from new construction. The MSD has not submitted an Annual Report while under the requirements of the KPDES Permit, effective date of August 1, 2011.

The KPDES Permit, Table 4 requires the MSD to develop and implement criteria and/or procedures for site inspections to include an Enforcement Response Plan (ERP) within 60 days of the KPDES Permit effective date. The MSD uses the ERP from the MSD Illicit Discharge Detection and Elimination Plan, Appendix III for enforcement of the stormwater construction program. The MSD has not developed and implemented formalized criteria and/or procedures for conducting construction site inspections. The MSD has issued fines for construction site non-compliance. The MSD has developed an unofficial fine schedule that is used to administer fines. The fine schedule has not been adopted.

The KPDES Permit, Table 4 requires the MSD to publically document SWPPP procedures and expectations. The MSD provides construction site operator and plan preparer training to the public that includes explaining what the MSD expects in SWPPP procedures. Additionally, the KPDES Permit, Table 4 requires the MSD to review its inspector practices and communicate and confirm responsibilities and requirements related to inspections. The Development Plan/Review, Inspection and Enforcement department and Design/Construction, Inspection and Enforcement department supervisors periodically observe their inspection staff as they conduct field inspections. All of the MSD Inspection and Enforcement inspectors are required to attend the public construction site operator training annually and the MSD internal inspector training that is administered by the Development Plan/Review, Inspection and Enforcement department supervisor. The department supervisors direct their respective inspection staff in documentation requirements, inspection frequency, and inspection standards and protocol, but a formalized SOP of inspection protocol has not been developed.

The KPDES Permit, Table 4 requires the MSD to track enforcement actions and provide a summary of the actions in the Annual report. The MSD keeps records of enforcement actions in the Hansen database. The MSD has not submitted an Annual Report while under the requirements of the KPDES Permit, effective date of August 1, 2011.

During the MS4 inspection, the MS4 inspection team observed the MSD Inspection and Enforcement inspectors conduct construction stormwater inspections of Magnolia Springs East, Norton Commons, and River Road Interceptor. Detailed summaries of these site visits are included in Attachments 5, 6, and 7 respectively. During the industrial inspection site visit of Jeffersonville Public Works municipal operations, construction stormwater issues were

identified, and the MSD began a preliminary construction stormwater inspection as summarized in Attachment 4.

Permit Requirements: *The MSD must develop and implement criteria and procedures for conducting site inspections as required in the KPDES Permit Part II.B.4.b.(vi) and Table 4, CS 1 Legal Prohibition/Control Authority, Construction Site Inspection.*

Program Recommendation: *The MSD should:*
1) adopt its unofficial enforcement fine schedule to alleviate the potential for being considered arbitrary and capricious; and
2) develop a Standard Operating Procedure of inspection protocol to include details such as how to conduct an inspection and what items to inspect.

2.4.2.vii Develop, Implement Enforcement Procedures

The MSD Ordinance 186-07 (i.e., Louisville/Jefferson County Erosion Prevention and Sediment Control Ordinance) requires implementation of enforcement where clearing or other land disturbing activity has proceeded without an approved plan, issuance of a Site Disturbance Permit and proper Notice of Construction under the ordinance, or where a violation is causing or has imminent ability to cause adverse impacts or off-site degradation. Possible enforcement actions include issuing a FCN, NOV, or Stop Work Order, and Revocation of Permit. The MSD uses the ERP from the MSD Illicit Discharge Detection and Elimination Plan, Appendix III for enforcement of the stormwater construction program.

Typically, a FCN is the initial enforcement action taken by the stormwater departments. The MSD issues all NOVs through the Development Plan/Review, Inspection and Enforcement department. An NOV includes a potential fine and in conjunction, a Stop Work Order is always issued. If a construction site is issued a second NOV for off-site degradation or adverse impacts, their certification card may be revoked. Repeated off-site degradation or adverse impacts at a capital improvement project site may result in non-consideration for future MSD contracts. From March 2011 through February 2012, the MSD issued approximately 1,800 FCNs, approximately 100 Stop Work Orders, and collected $7,100 in fines (with $4,100 outstanding). The largest fine collected was $3,000 from Mac Construction, and the next largest fine was $1,000 from the Louisville Water Company.

No permit requirements or program recommendations.

2.4.2.viii Develop, Maintain Construction Site Inventory

The MSD developed a construction site inventory that is maintained in the Hansen system. Initially, the plan review process is entered into the Hansen system to begin tracking the construction site. The database inventory includes all active public and private construction sites that receive a building permit. Typically, the construction sites tracked in the database are 900 square feet and greater. The Inspection and Enforcement inspectors track the sites in an Excel database until the site is completed and then transfer that information to the Plan Review staff to

include in the Hansen database. The database inventory is updated daily as the Plan Review staff add new construction sites and the Inspection and Enforcement inspectors assess the existing sites.

The information kept in the inventory includes the site name and address, contact information, Site Disturbance Permit number, permit date, plan approval date, assigned site number, status, project type, contractor, enforcement activity and resolution, the assigned Inspection and Enforcement inspector's name, and the inspection reports and dates. The database inventory information includes tracking of which sites submit an NOI for a KDOW Construction General Permit.

No permit requirements or program recommendations.

2.4.2.ix Develop, Implement High Quality Waters Protection

The MSD's plan review process includes evaluating the site plan BMPs to ensure the ability to meet the requirement that 80% of sediment is retained on site during a 10-year, 24-hour storm event. The MSD's construction site inspection policy is to inspect each site at least every two weeks, but typically they inspect each site weekly. "Hot spot" sites, such as those near waters, are also inspected after a 0.5-inch rain in a 24-hour period.

No permit requirements or program recommendations.

Attachment 1

Louisville-Jefferson County Metropolitan Sewer District Industrial Inspection

All-Star Waste Disposal

Weather: sunny, warm N38.14697 W085.75388

Mr. Jerry Whittum, SAIC, and Ms. Abigail Rains, Kentucky Division of Water (KDOW), observed Mr. Robert Pifine, Emergency Response Pretreatment Inspector, Louisville-Jefferson County Metropolitan Sewer District (MSD), conduct a stormwater inspection of the All-Star Waste Disposal industrial facility site. Mr. Dennis Allgeier, President, and Mr. Ted Hartmann, Jr., Vice-President, the owners of All-Star Waste Disposal accompanied Mr. Pifine on the inspection. Mr. Charles McCormick, MSD Municipal Separate Storm Sewer System (MS4) Stormwater Program Consultant, URS Corporation, and Mr. Kenneth Nichter and Mr. Michael Moore, Emergency Response Pretreatment Inspectors, MSD joined the inspection to observe.

All-Star Waste Disposal is the owner and operator/supplier of portable toilets and demolition material dumpsters for construction sites. The company rents and maintains portable toilets and dumpsters. Empty portable toilets and dumpsters are stored and maintained on the facility site. Only the exteriors of the portable toilet are washed at this facility site with soap and water. The liquid chemicals are added to the portable toilets after the unit is placed on a construction site, and the pumped waste product is disposed at the landfill dump station.

It should be noted that industrial inspections were not required to be conducted during the previous permit cycles and that the current permit became effective August 11, 2011. Mr. Pifine is familiar with conducting hazardous material inspections and pretreatment inspections, but unfamiliar with industrial inspections for the MS4 program.

Inspector Statements/Observations:

- Mr. Pifine conducted the inspection to include an opening conference explaining the MS4 program and the purpose of the inspection. He had researched the site prior to the inspection visit. All-Star Waste Disposal does not have a Stormwater Pollution Prevention Plan (SWPPP).

- Mr. Pifine led a walk-through inspection of the site. He quickly inspected inside areas for floor drains and storage of hazardous material chemicals. He inspected outside areas including portable toilet storage, dumpster storage, vehicle/equipment parking, a pile of waste construction debris, and the intermittent stream that passes through the site. He collected photographs to document his findings.

- Mr. Pifine directed the site owners to repair a secondary containment structure for above-ground storage tanks.

- Mr. Pifine directed the owners to generally clean up trash on the site to include an abandoned barrel along the stream.

- Mr. Pifine inspected the area along the stream, noted that a large amount of construction debris had been placed as fill along its bank, and stated that MSD would confer with the KDOW to determine any directive regarding the removal and proper disposal of the debris.

  During further investigation after the site inspection, MSD determined that approximately 160 – 180 feet of the intermittent stream had been piped and filled over. KDOW was advised of the issue and a combined KDOW and MSD inspection is being scheduled.

SAIC Concerns:

SAIC has no concerns.

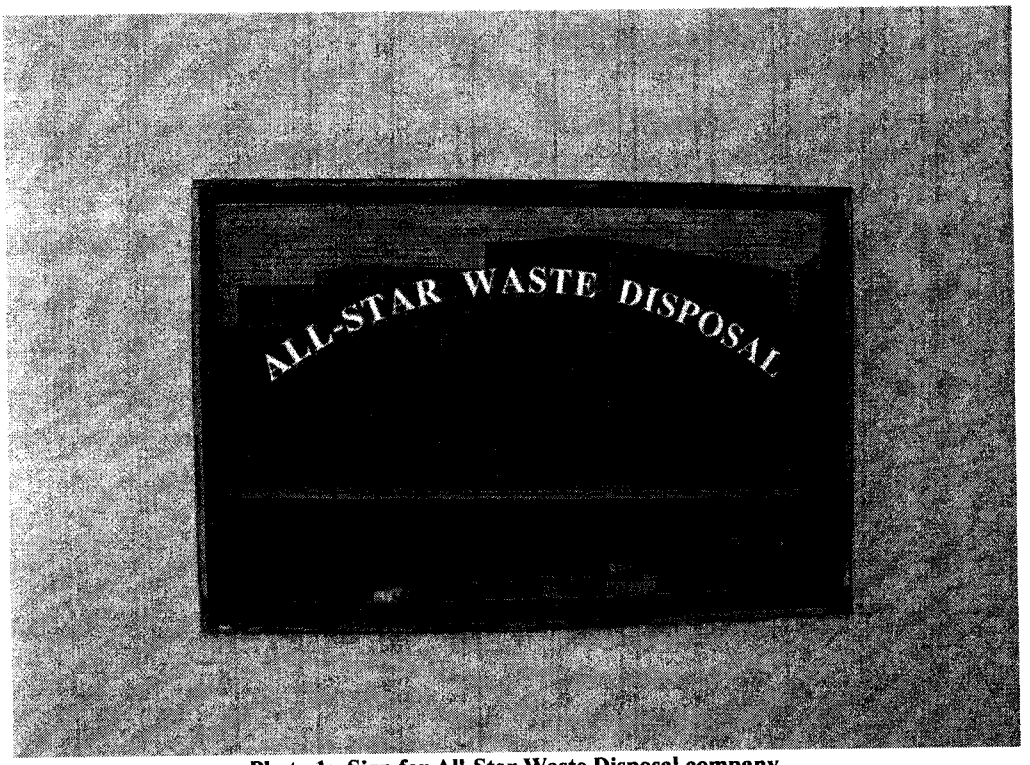

Photo 1: Sign for All-Star Waste Disposal company.

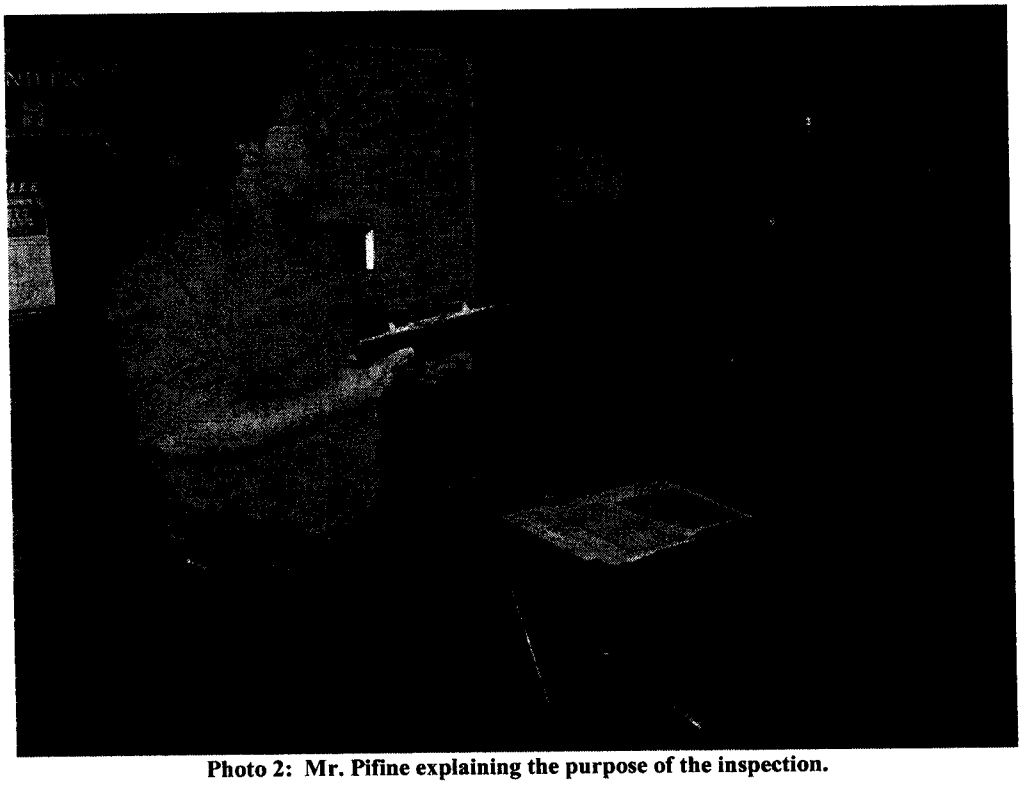

Photo 2: Mr. Pifine explaining the purpose of the inspection.

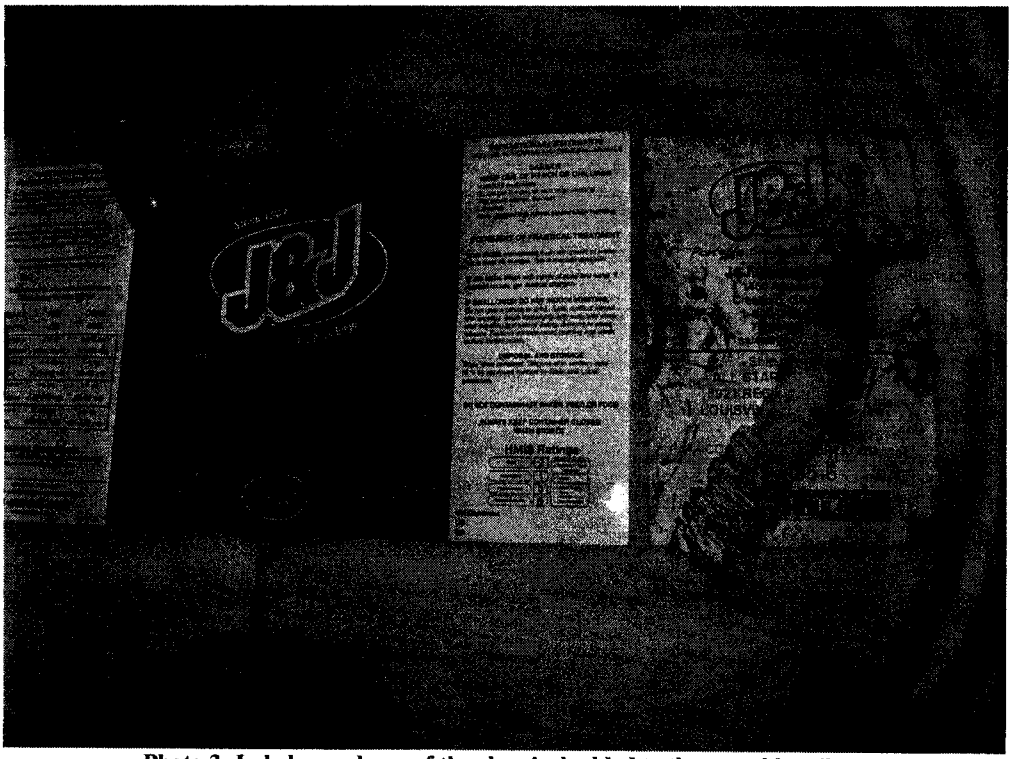

Photo 3: Label on a drum of the chemical added to the portable toilets.

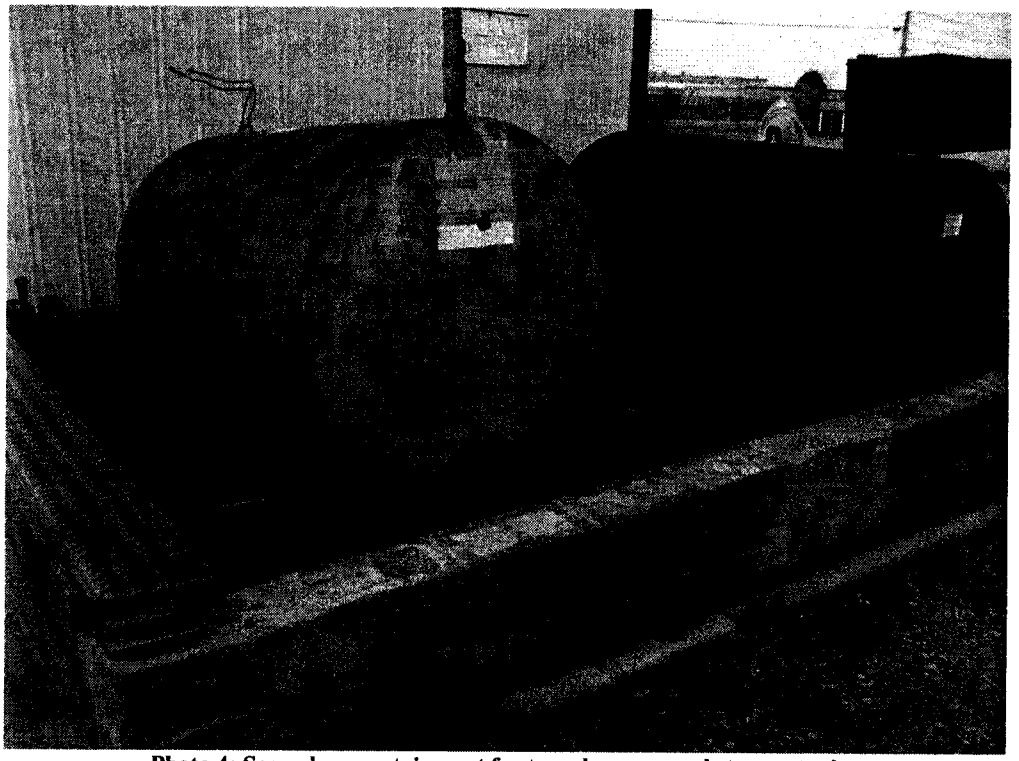

Photo 4: Secondary containment for two above ground storage tanks.

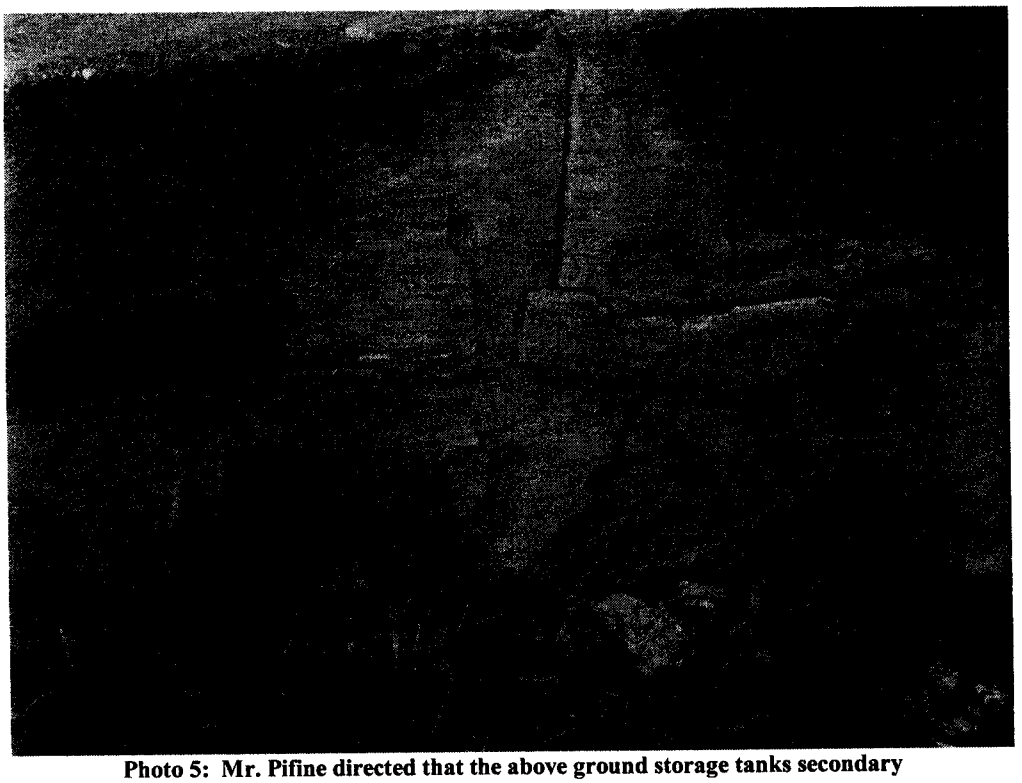

Photo 5: Mr. Pifine directed that the above ground storage tanks secondary containment be repaired.

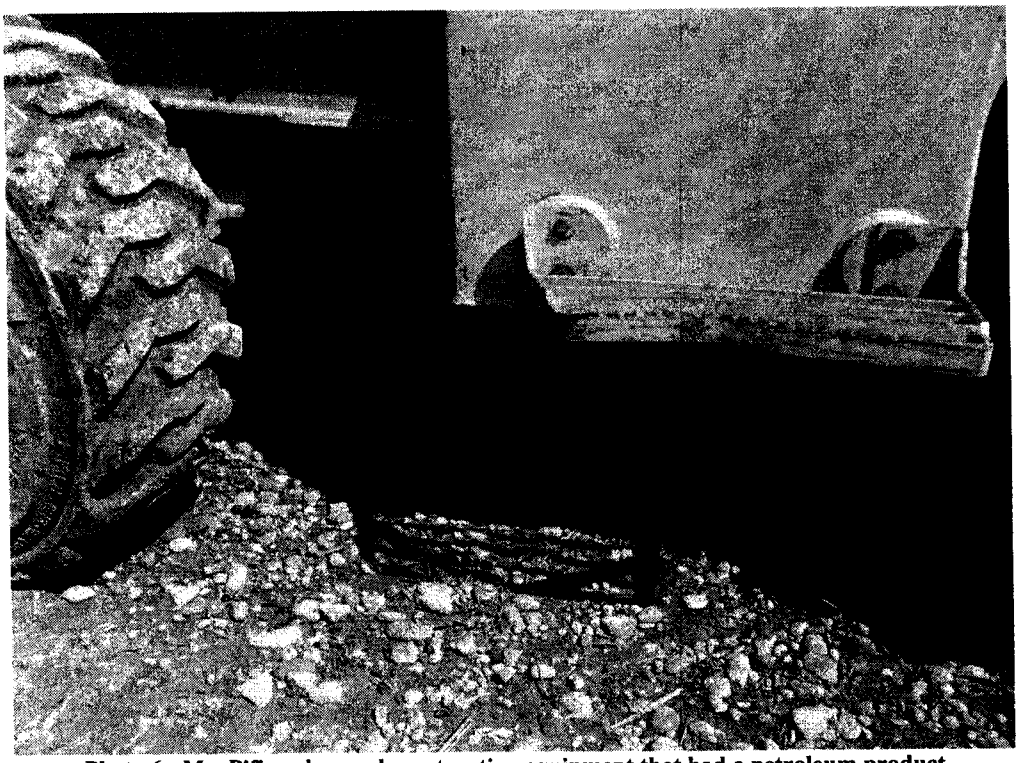

Photo 6: Mr. Pifine observed construction equipment that had a petroleum product leak to the parking area soil.

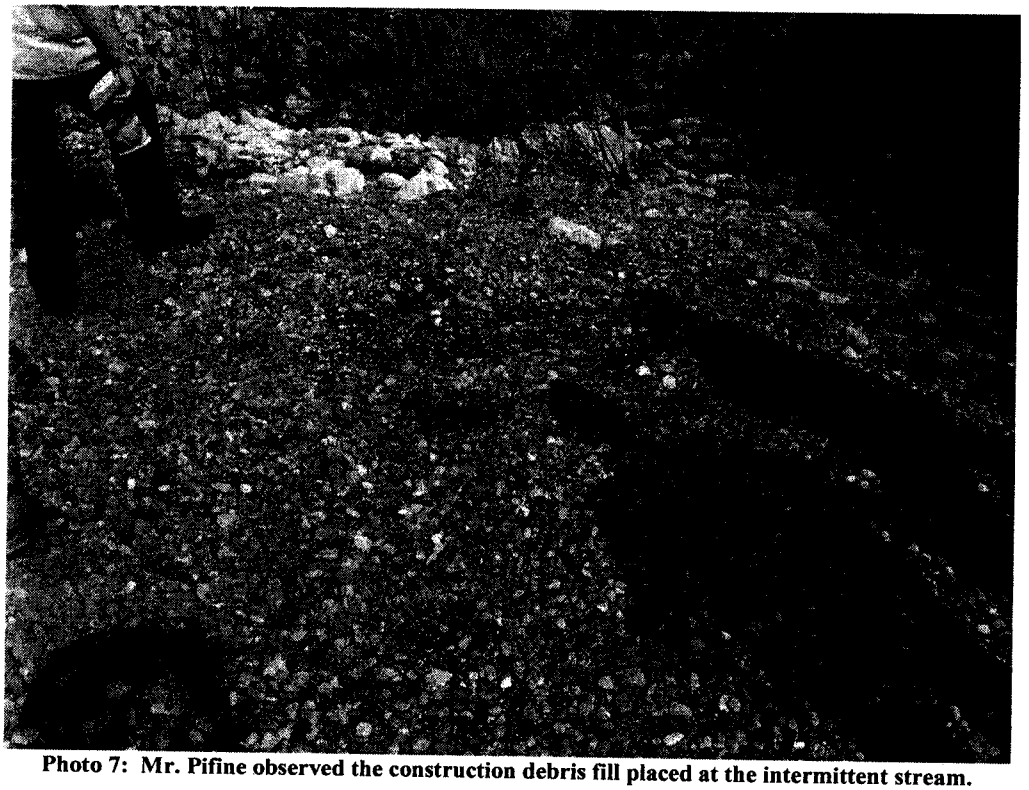

Photo 7: Mr. Pifine observed the construction debris fill placed at the intermittent stream.

Attachment 2

Louisville-Jefferson County Metropolitan Sewer District Industrial Inspection

Con-way Freight

Weather: sunny, warm N38.15434 W085.68001

Mr. Jerry Whittum, SAIC, and Ms. Abigail Rains, Kentucky Division of Water (KDOW), observed Mr. Rick Sils, Emergency Response Pretreatment Inspector, Louisville-Jefferson County Metropolitan Sewer District (MSD), conduct a stormwater inspection of the Con-way Freight industrial facility site that operates as a trucking terminal. Mr. William Wright, Regional Safety Manager, Con-way Freight, accompanied Mr. Sils on the inspection. Mr. Charles McCormick, MSD Municipal Separate Storm Sewer System (MS4) Stormwater Program Consultant, URS Corporation, and Mr. Kenneth Nichter, Emergency Response Pretreatment Inspector, MSD, joined the inspection to observe.

It should be noted that industrial inspections were not required to be conducted during the previous permit cycles and that the current permit became effective August 11, 2011. Mr. Sils is familiar with conducting hazardous material inspections and pretreatment inspections, but unfamiliar with industrial inspections for the MS4 program.

Inspector Statements/Observations:

- Mr. Sils conducted the inspection to include an opening conference where he explained the purpose of the inspection and that the facility was categorized by MSD as a High Risk Industrial Facility. He stated that following the inspection, MSD may reclassify Con-way Freight as a lower risk facility if appropriate. The Con-way Freight representative did not know if the site had a Stormwater Pollution Prevention Plan (SWPPP).

- Mr. Sils noted that the facility does not have a Kentucky Pollutant Discharge Elimination System (KPDES) permit. He referred it to Ms. Rains for follow-up to determine whether a KPDES permit is required for the site.

  Subsequent to the inspection, KDOW emailed Con-way Freight and MSD informing them that a KPDES permit is required for the facility.

- Mr. Sils led a walk-through inspection of the site. He inspected outside areas including the truck parking area, garage, stormwater area inlets, fuel island, and stormwater retention pond. He collected photographs of the stormwater retention pond and a curb cut drain to a vegetated area.

SAIC Concerns:

SAIC was concerned that the MSD inspection report did not accurately reflect the conditions of the site at the time of the inspection and did not document inspection observations. MSD did not collect photographs of the liquid containers stored outside or staining to the pavement. The MSD inspection report states "There are no materials of concern exposed to the weather and no problems or issues were identified." During the inspection, MSD identified several containers of liquids stored outside, uncovered and uncontained, and directed Con-way Freight staff to move the containers inside. At the closing conference, Mr. Wright said that the liquid containers were being moved inside.

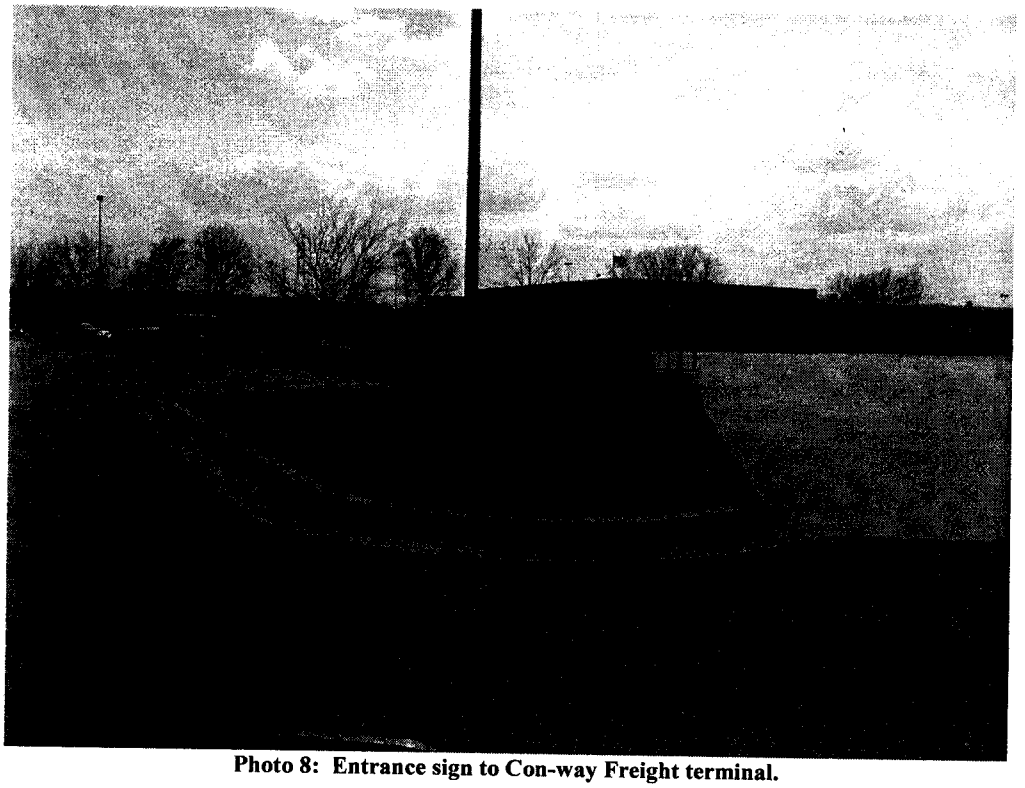

Photo 8: Entrance sign to Con-way Freight terminal.

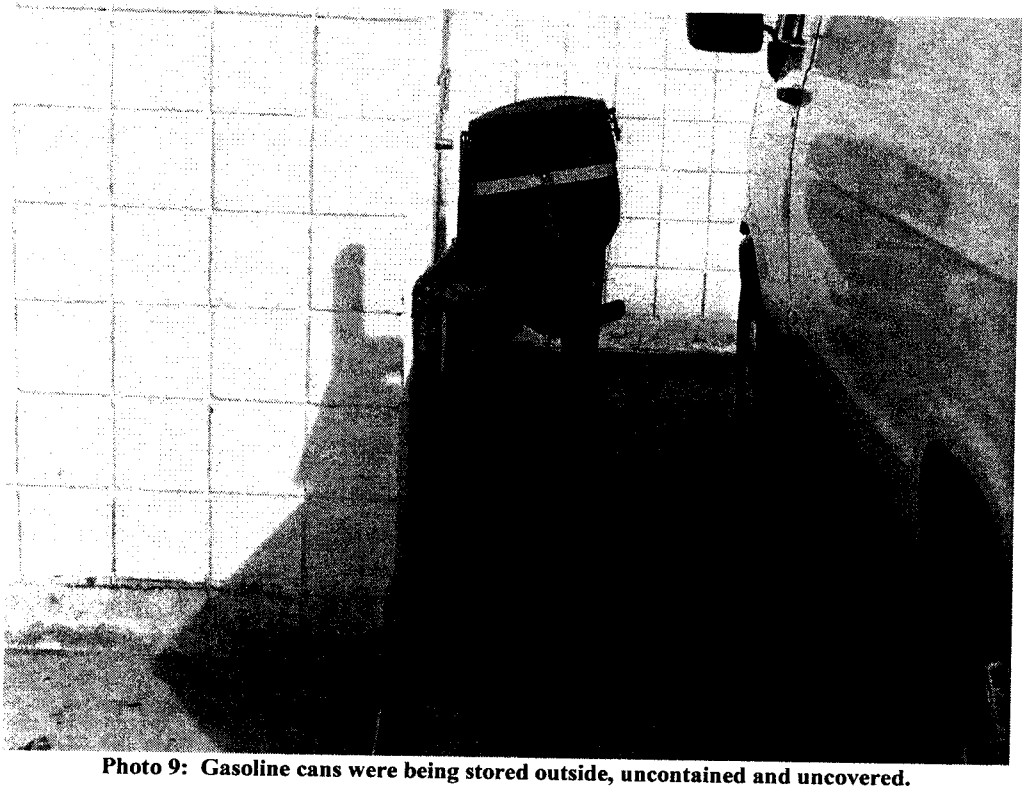

Photo 9: Gasoline cans were being stored outside, uncontained and uncovered.

Photo 10: Petroleum product staining to the concrete near the maintenance garage appeared to be hydraulic fluid.

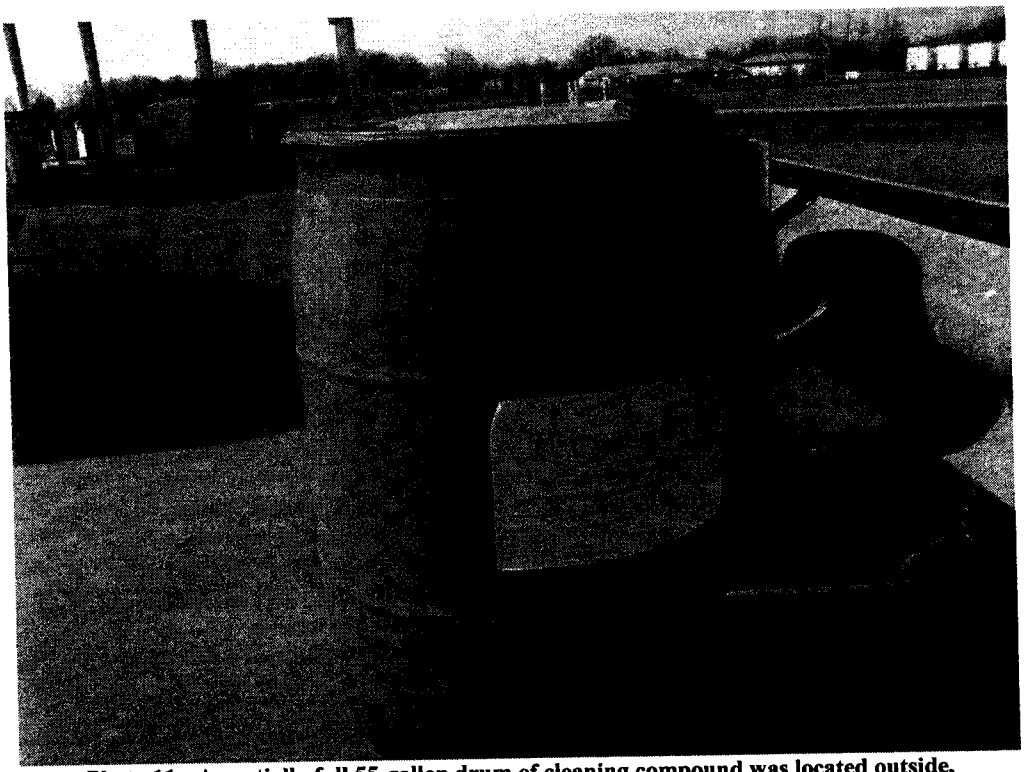

Photo 11: A partially full 55-gallon drum of cleaning compound was located outside, uncovered and uncontained.

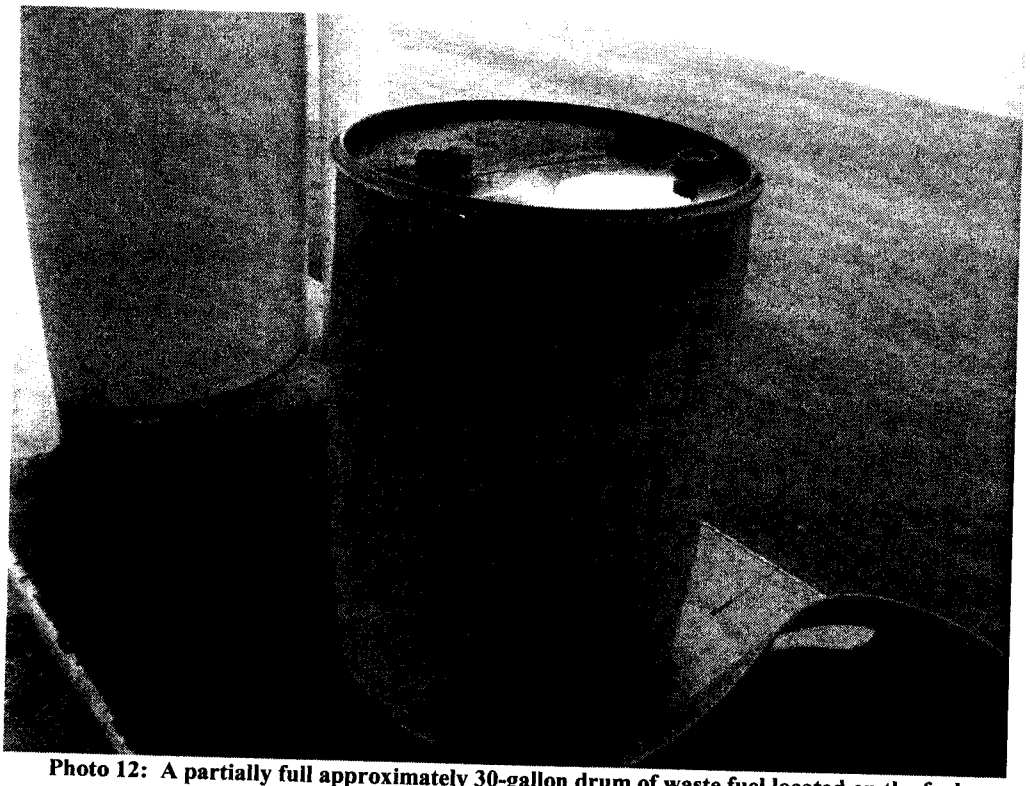

Photo 12: A partially full approximately 30-gallon drum of waste fuel located on the fuel island had the bungs removed. If tipped over, the drum would discharge the contents. The drum was located in a covered area of the fuel island on a raised concrete pad.

Attachment 3

Louisville-Jefferson County Metropolitan Sewer District Municipal Operations Inspection

Central Maintenance Facility

Weather: sunny, warm N38.22103 W085.80920

Mr. Jerry Whittum, SAIC, and Ms. Abigail Rains, Kentucky Division of Water (KDOW), observed Mr. Kenneth Nichter, Emergency Response Pretreatment Inspector, Louisville-Jefferson County Metropolitan Sewer District (MSD), conduct a stormwater inspection of the MSD Central Maintenance Facility that maintains MSD vehicles. Mr. Tony Marconi, Preventative Maintenance and Support Services Manager; Ms. Heather Dodds, Infrastructure and Flood Protection; and Ms. Rhonda Boyle – Crotzer, Storeroom Supervisor of MSD Central Maintenance Facility, accompanied Mr. Nichter on the inspection. Mr. Charles McCormick, MSD Municipal Separate Storm Sewer System (MS4) Stormwater Program Consultant, URS Corporation, and Mr. Michael Moore, Emergency Response Pretreatment Inspector, MSD, joined the inspection to observe.

It should be noted that industrial inspections were not required to be conducted during the previous permit cycles and that the current permit became effective August 11, 2011. Mr. Nichter is familiar with conducting hazardous material inspections and pretreatment inspections, but unfamiliar with industrial inspections for the MS4 program.

Inspector Statements/Observations:

- Mr. Nichter conducted the inspection to include an opening conference. He reviewed the Stormwater Pollution Prevention Plan (SWPPP) prior to the site inspection.

- Mr. Nichter led a walk-through inspection of the site. He inspected inside areas for floor drains, Best Management Practices (BMPs), and storage of hazardous materials. He inspected the outside stormwater area inlets to the MSD MS4, roadway material storage area, dumpsters, fuel island, and vehicle parking. He collected photographs to document his findings.

- Mr. Nichter directed the Central Maintenance Facility staff to investigate the welding shop floor drains to ensure they discharge to the on-site oil/water separator.

Mr. Nichter inspected the sediment bags in the stormwater area inlets located in the vehicle parking and driveway areas. He directed that sediment bags in need of maintenance be properly maintained, repaired, or replaced as appropriate.

- Mr. Nichter inspected vehicles parked outside and identified those having petroleum leaks to the pavement. He directed staff to remove or contain equipment with petroleum product leaks.

- Mr. Nichter noted that while Central Maintenance Facility staff state that site inspections are conducted, the inspections are not documented. Mr. Nichter recommended the Central Maintenance Staff begin to document all site self-inspections.

SAIC Concerns:

SAIC was concerned that while the SWPPP contained an appropriate site map, it did not contain a vicinity map detailing the surrounding water bodies. The MSD Central Maintenance Facility staff are not certain as to the ultimate discharge location of the site stormwater.

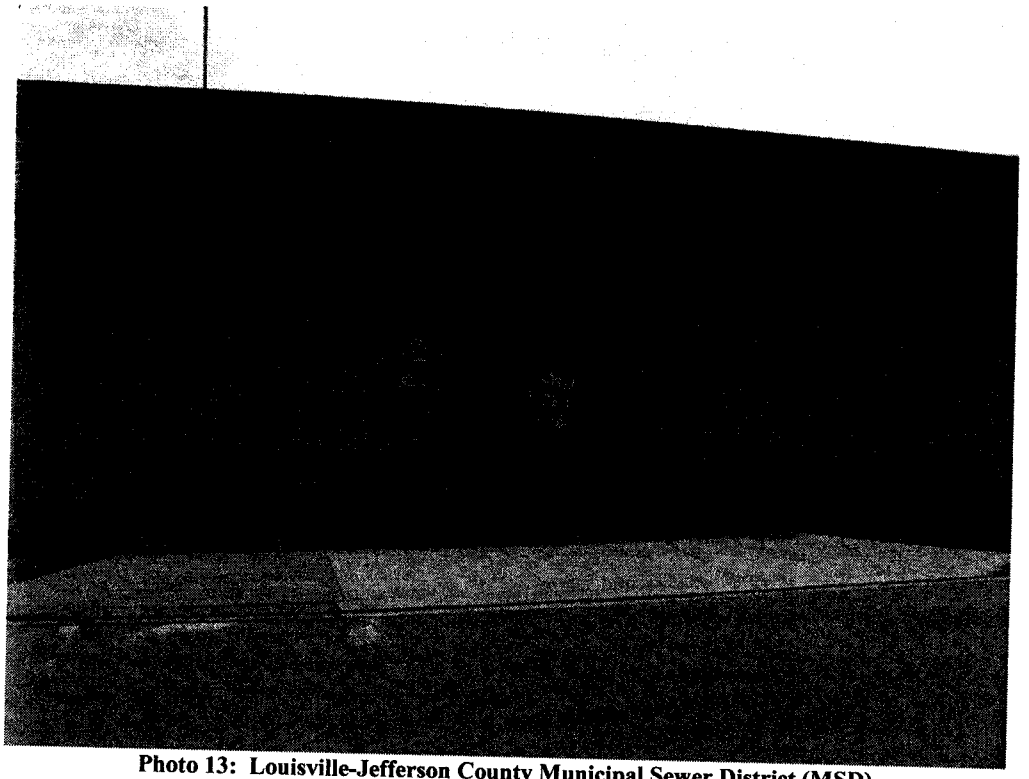

Photo 13: Louisville-Jefferson County Municipal Sewer District (MSD) Central Maintenance Facility.

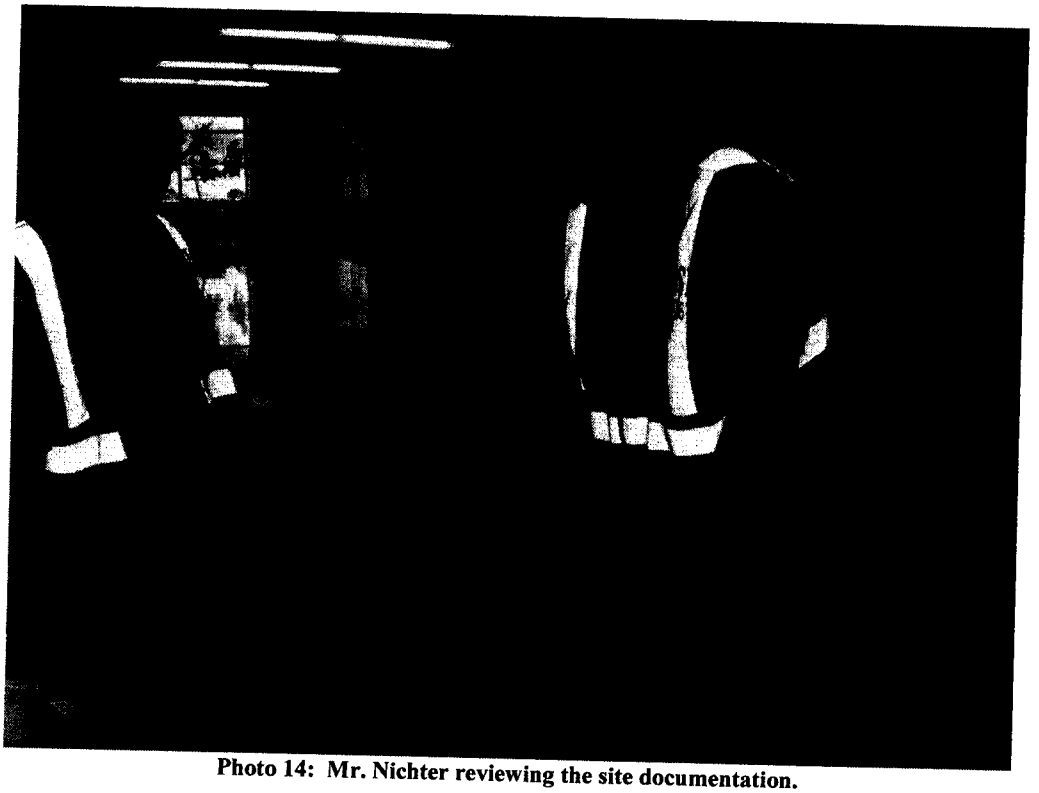

Photo 14: Mr. Nichter reviewing the site documentation.

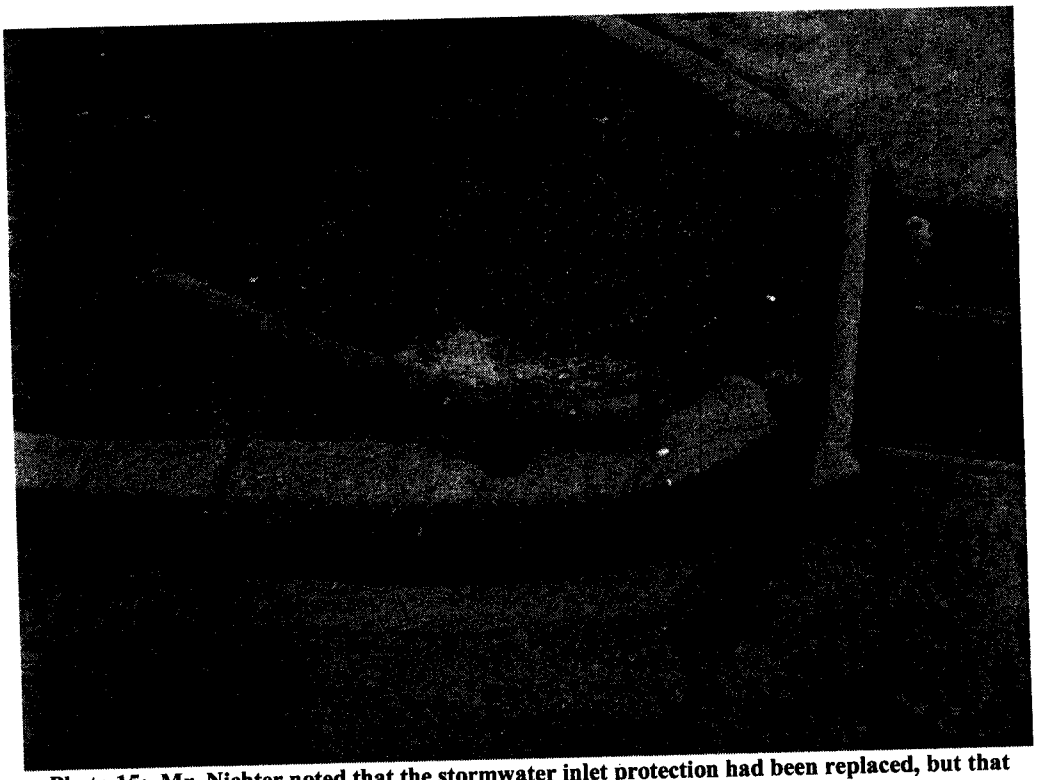

Photo 15: Mr. Nichter noted that the stormwater inlet protection had been replaced, but that the used protective device was not properly disposed.

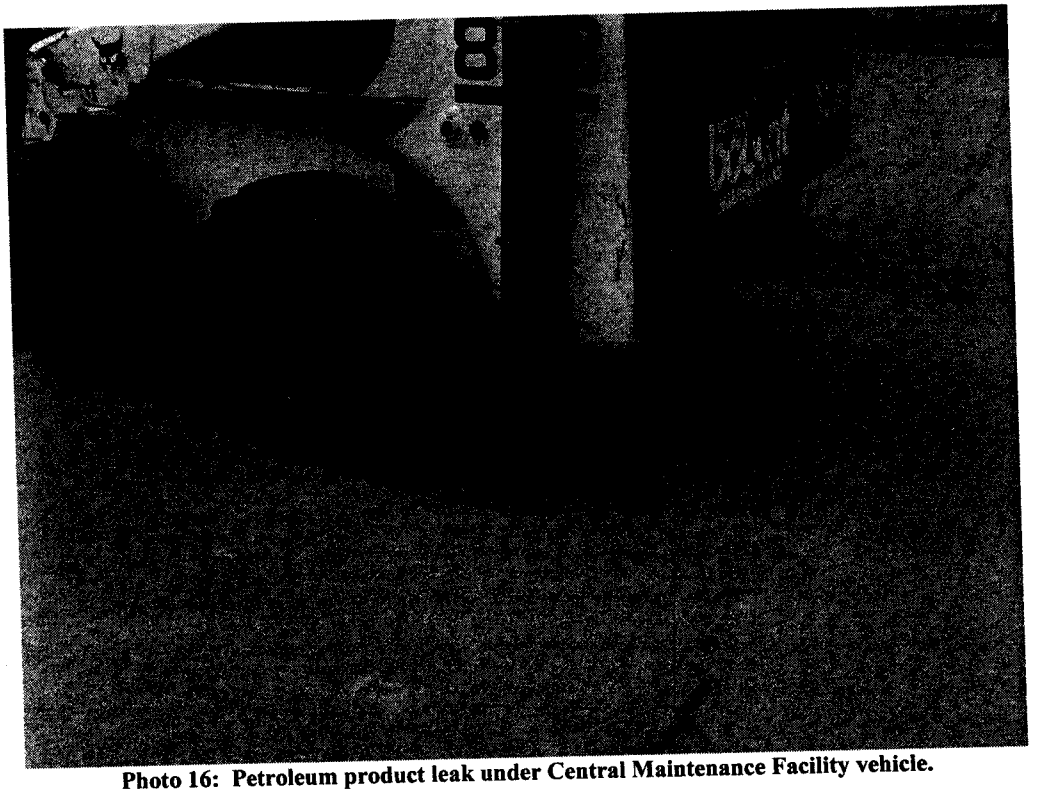

Photo 16: Petroleum product leak under Central Maintenance Facility vehicle.

Photo 17: Petroleum product leak under Central Maintenance Facility vehicle.

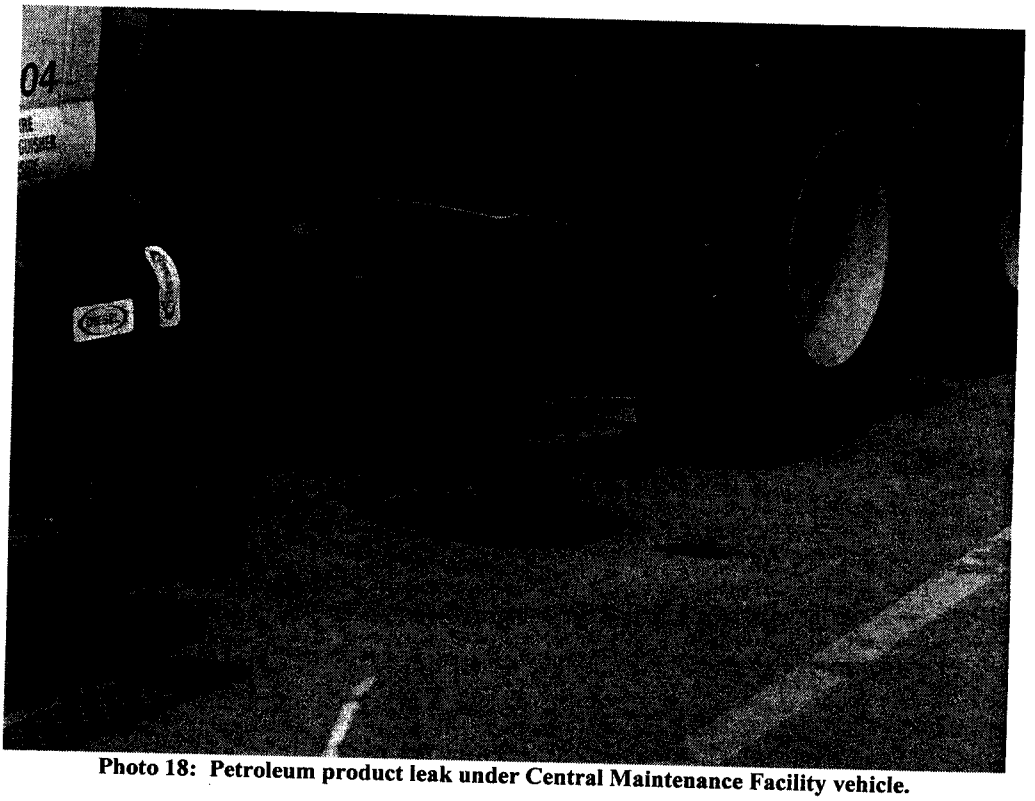

Photo 18: Petroleum product leak under Central Maintenance Facility vehicle.

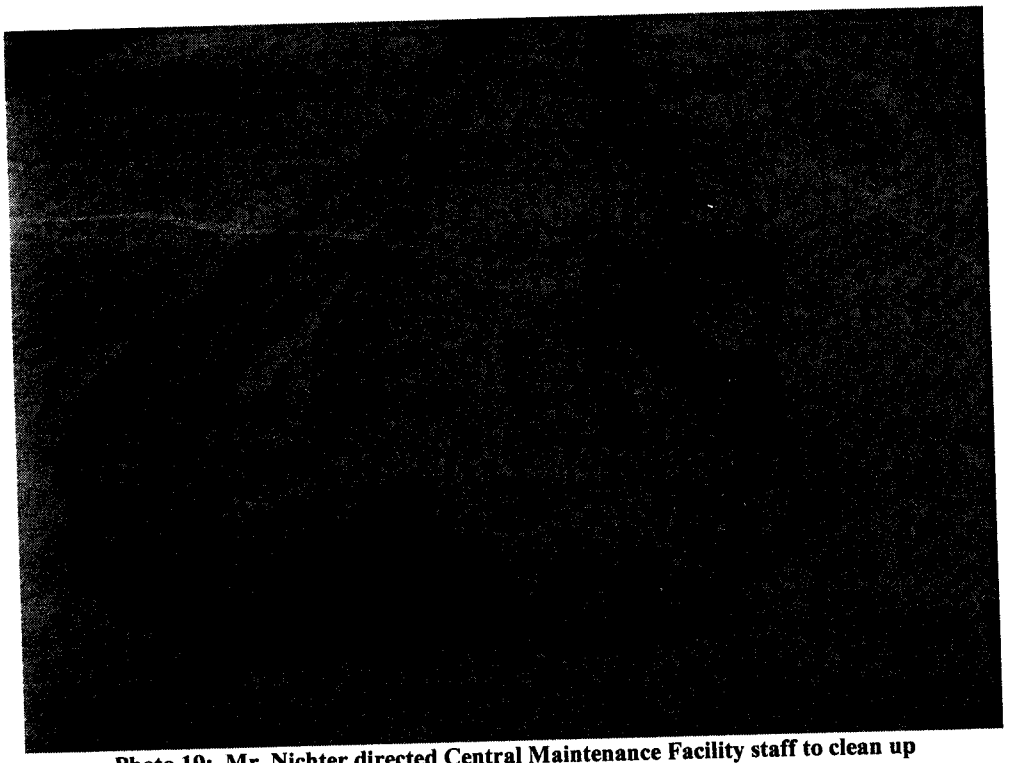

Photo 19: Mr. Nichter directed Central Maintenance Facility staff to clean up spills to the pavement.

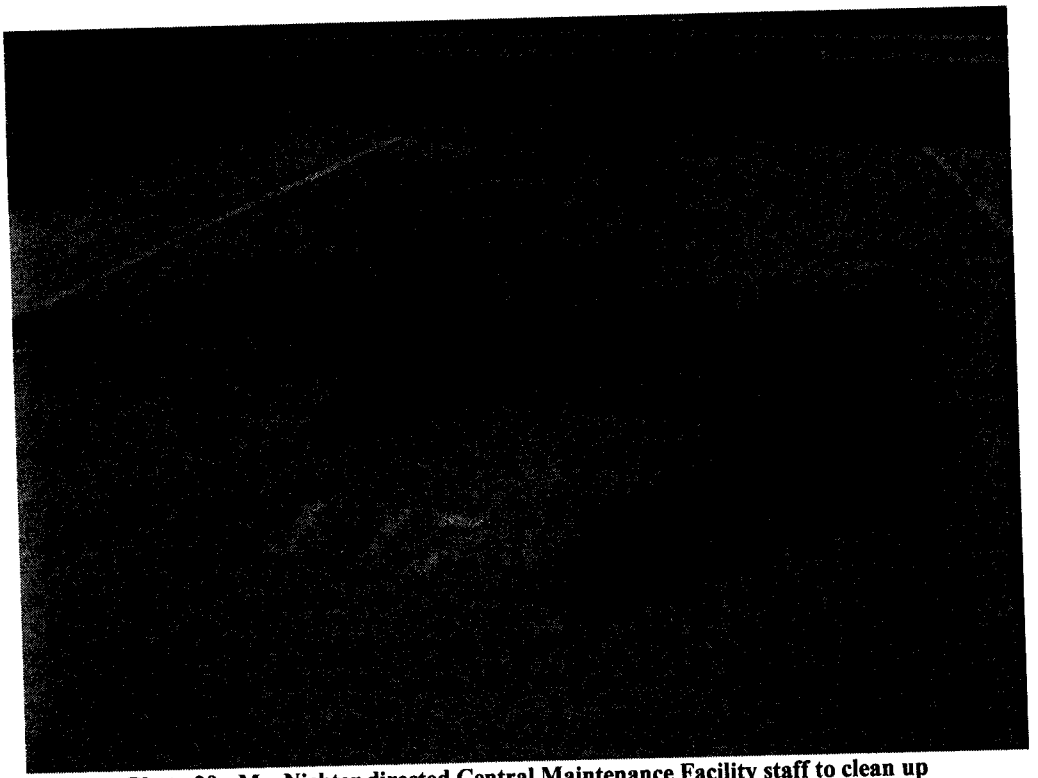

Photo 20: Mr. Nichter directed Central Maintenance Facility staff to clean up spills to the pavement.

Attachment 4

Louisville-Jefferson County Metropolitan Sewer District Co-permittee Municipal Inspection

Jeffersontown Fleet Maintenance

Weather: sunny, warm N38.20166 W085.56378

Mr. Jerry Whittum, SAIC, and Ms. Abigail Rains, Kentucky Division of Water (KDOW), met with Mr. Matthew Meunier, Assistant to the Mayor, Director of Planning and Design, Jeffersontown, KY to discuss the role of Jeffersontown and its permit requirements as a co-permittee of the Louisville-Jefferson County Metropolitan Sewer District (MSD) Municipal Separate Storm Sewer System (MS4) permit. Jeffersontown and MSD entered into an agreement in June 1998 to establish the role of each in fulfilling the permit obligations. The agreement had at the most a ten-year duration and therefore had not been in effect since June 2008 at the latest. The SAIC and KDOW representatives discussed the MSD permit requirements that become the responsibility of Jeffersontown if an agreement between the two municipal entities is not active. Following the discussion, MSD inspected the Jeffersontown Fleet Maintenance facility.

Mr. Whittum and Ms. Rains observed Mr. Michael Moore and Mr. Kenneth Nichter, Emergency Response Pretreatment Inspectors, Louisville-Jefferson County MSD, conduct a stormwater inspection of the Jeffersontown Public Works that includes the Fleet Maintenance facility that maintains Jeffersontown vehicles. Mr. Jimmy Franconia, Director of Public Works and Mr. Matthew Meunier, Jeffersontown, accompanied the MSD inspectors on the inspection. Mr. Charles McCormick, MSD MS4 Stormwater Program Consultant, URS Corporation, Mr. Robert Stauble, Bond Administrator (Supervisor of Stormwater Construction Inspectors), MSD, and Mr. James Heid, Emergency Response Pretreatment Inspector, MSD, joined the inspection to observe.

It should be noted that industrial inspections were not required to be conducted during the previous permit cycles and that the current permit became effective August 11, 2011. Mr. Nichter is familiar with conducting hazardous material inspections and pretreatment inspections, but unfamiliar with industrial inspections for the MS4 program. Mr. Moore appeared experienced in conducting MS4 industrial inspections.

Inspector Statements/Observations:

- Mr. Moore conducted the inspection to include an opening conference. He determined the facility does not have a Stormwater Pollution Prevention Plan (SWPPP). Mr. Franconia stated that site self-inspections are conducted, but are not documented. Mr. Moore recommended that all self-inspections of the site be documented.

- Mr. Moore led a walk-through inspection of the garage area to inspect the floor drains. The discharge point of the floor drains was unknown so Fleet Maintenance staff had inserted steel plates in the top of the drains to limit the amount of flow that could enter. Mr. Moore directed the staff to conduct testing to identify the discharge location of the floor drains.

- Mr. Moore inspected the outside stormwater area inlets, salt box storage, equipment and roadway material storage, salt barn, dumpsters, fuel island, above-ground storage tanks (ASTs), vehicle and equipment parking, and police impound lot, that is only used to store confiscated vehicles that have not been wrecked.

- Mr. Nichter collected photographs to document the inspection findings.

- Mr. Moore directed proper cleaning of the salt box that is stored outside, uncovered and uncontained. He directed that all tanks, totes, barrels, and pails be labeled. He directed repair of the aboveground storage tanks secondary containment and that the drain valve be maintained in a closed position.

- Mr. Moore noted that a large area of greater than one acre located at the rear (north side of the property) was being backfilled with soil and some debris. Mr. Moore turned an inspection of that area over to Mr. Stauble. Mr. Stauble found that soil, to a depth of several feet, had been placed in an area (later verified as a floodplain) along Chenoweth Run, a water of the state. The backfilling operation was an ongoing activity by the Jeffersontown Public Works as a means to dispose of soil and rubble. Mr. Stauble contacted the KDOW and verified that Jeffersontown had not submitted a Notice of Intent (NOI) to obtain a Kentucky Pollutant Discharge Elimination System (KPDES) permit for soil disturbance. Mr. Stauble directed his construction inspector to come to the site immediately to conduct a formal inspection and begin enforcement. Mr. Stauble directed his staff to contact the US Army Corps of Engineers to ensure a permit was acquired for the activity in a floodplain.

SAIC Concerns:

SAIC had no concerns.

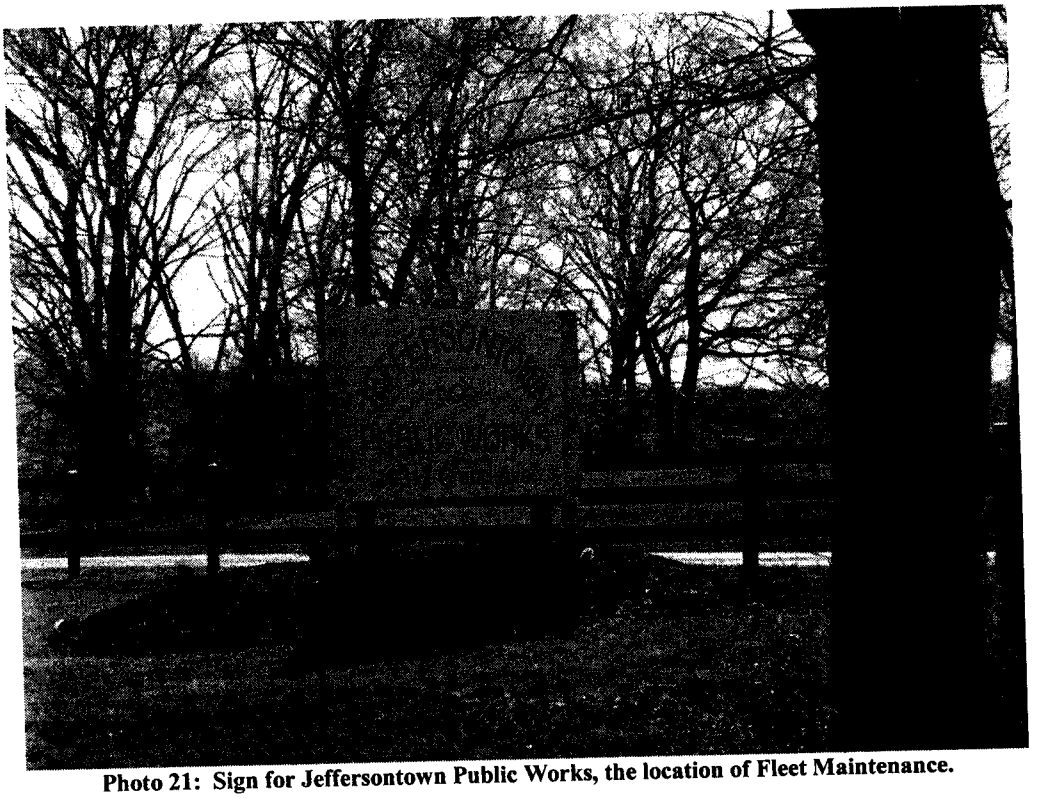

Photo 21: Sign for Jeffersontown Public Works, the location of Fleet Maintenance.

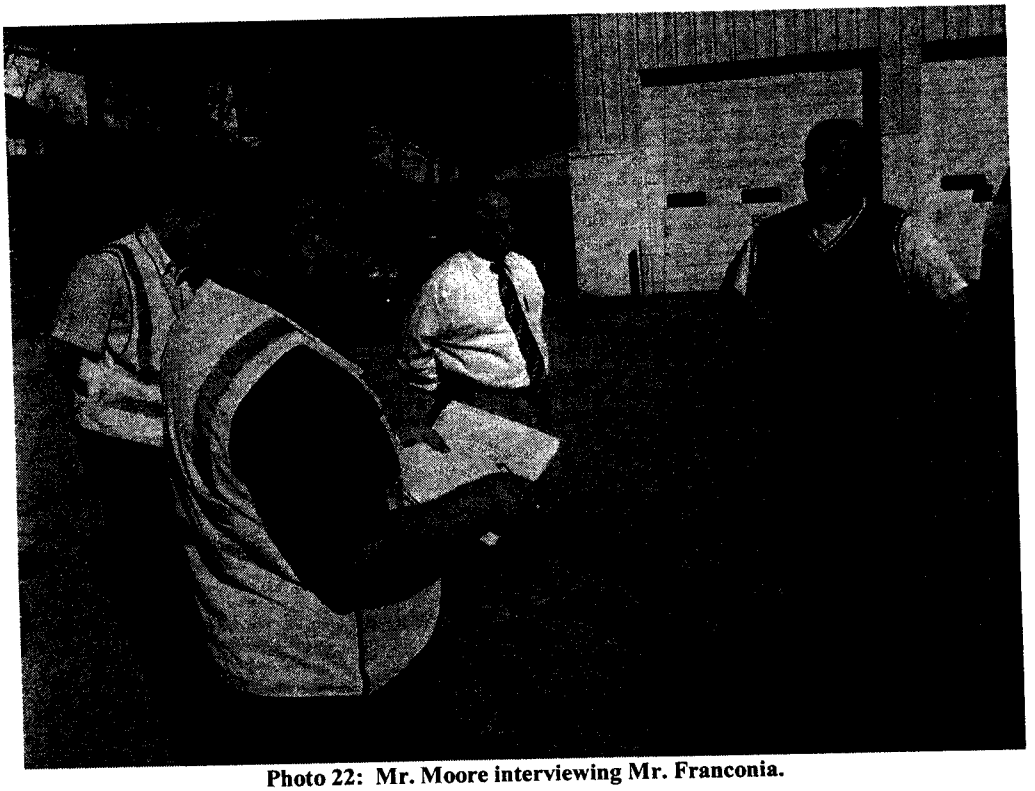

Photo 22: Mr. Moore interviewing Mr. Franconia.

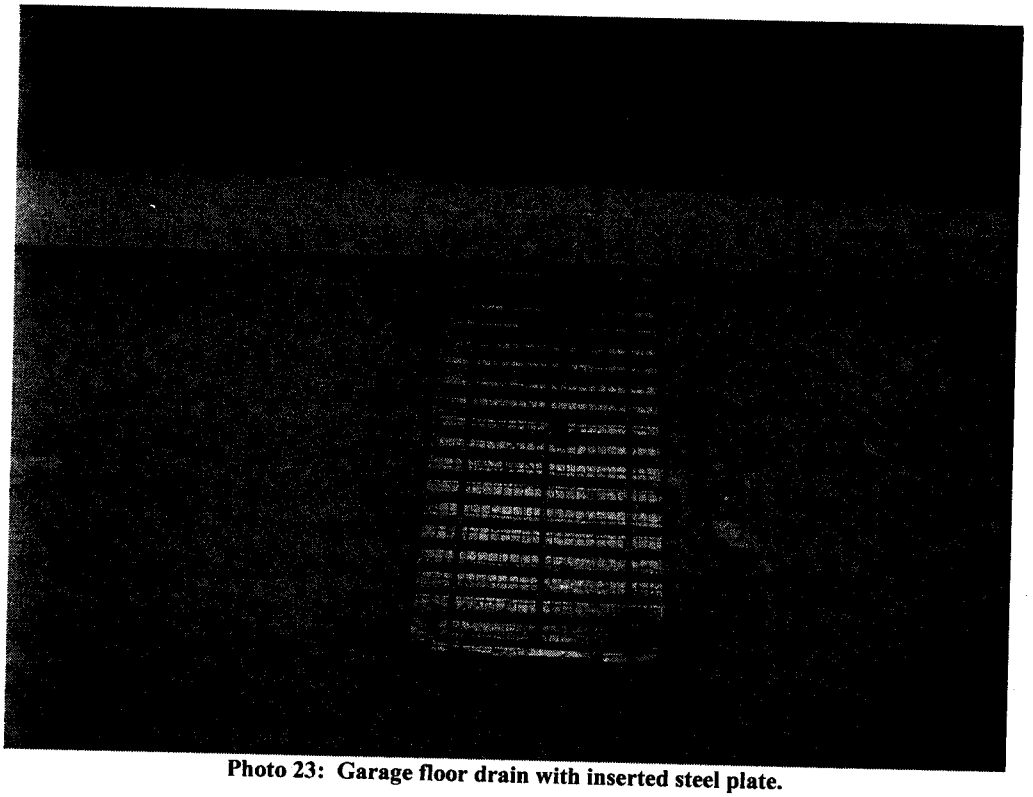

Photo 23: Garage floor drain with inserted steel plate.

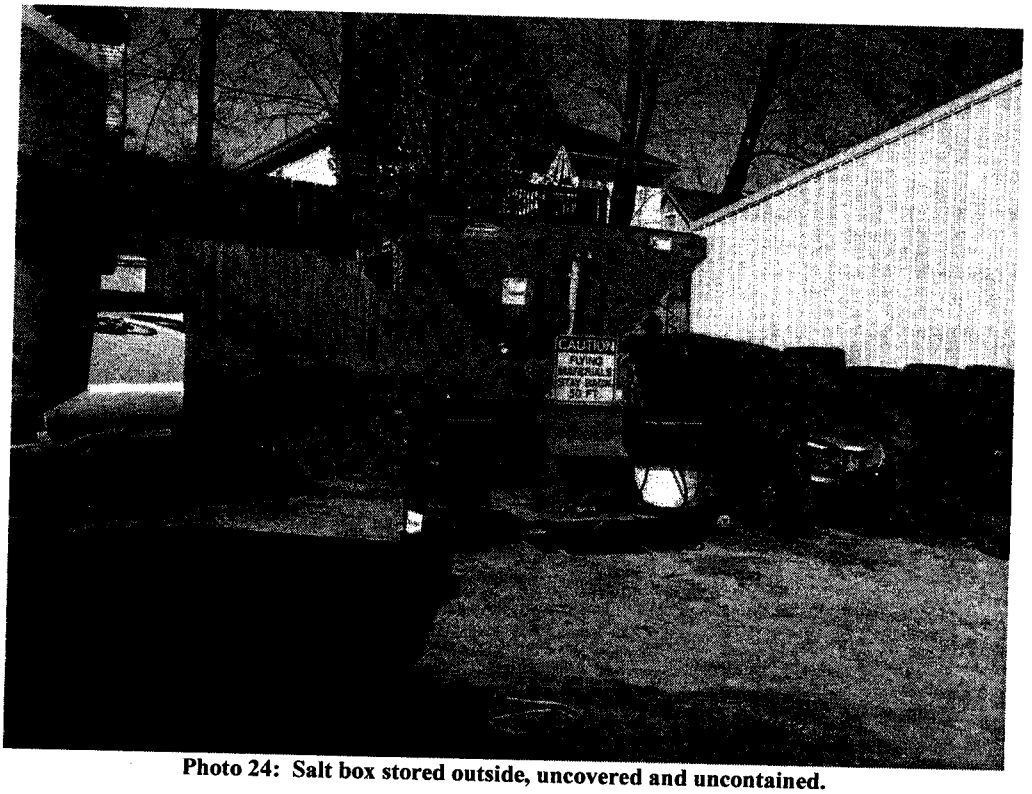

Photo 24: Salt box stored outside, uncovered and uncontained.

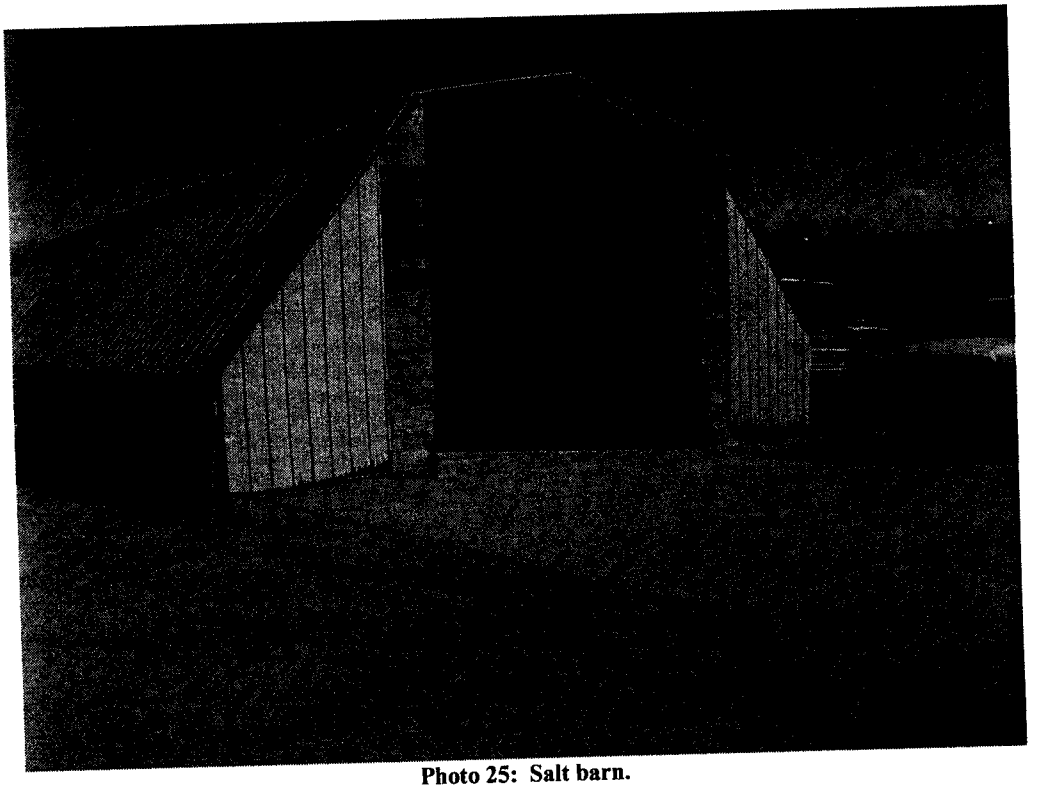

Photo 25: Salt barn.

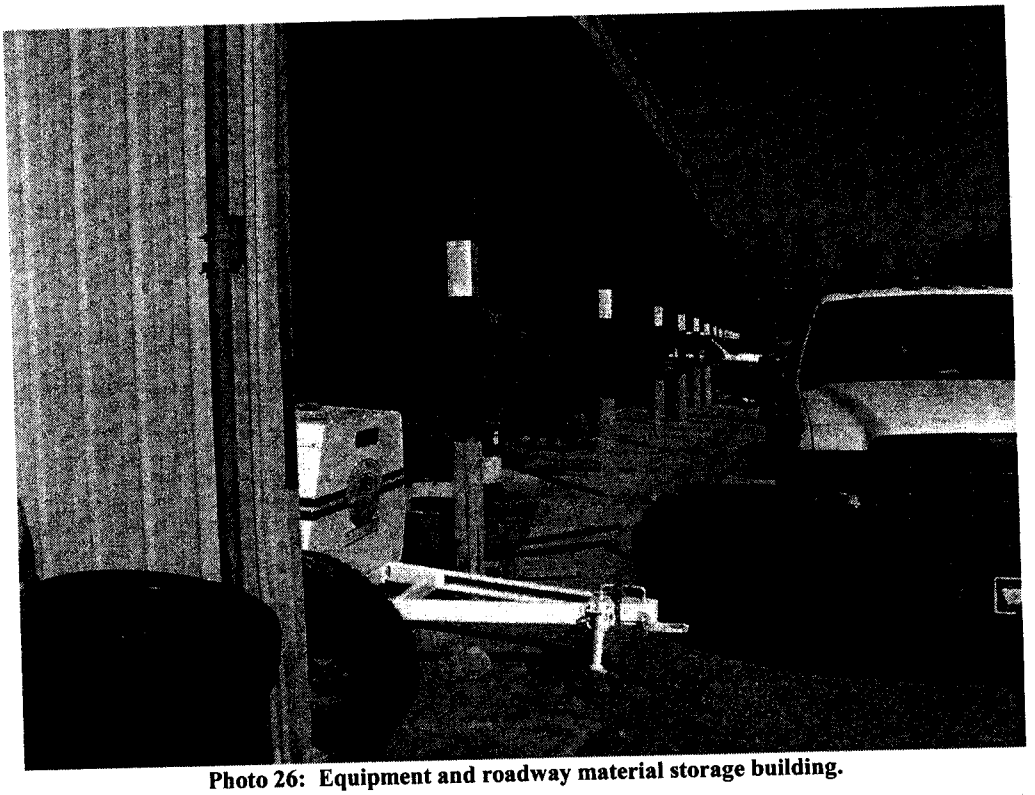

Photo 26: Equipment and roadway material storage building.

Photo 27: Road tar equipment stored outside, uncovered and uncontained.

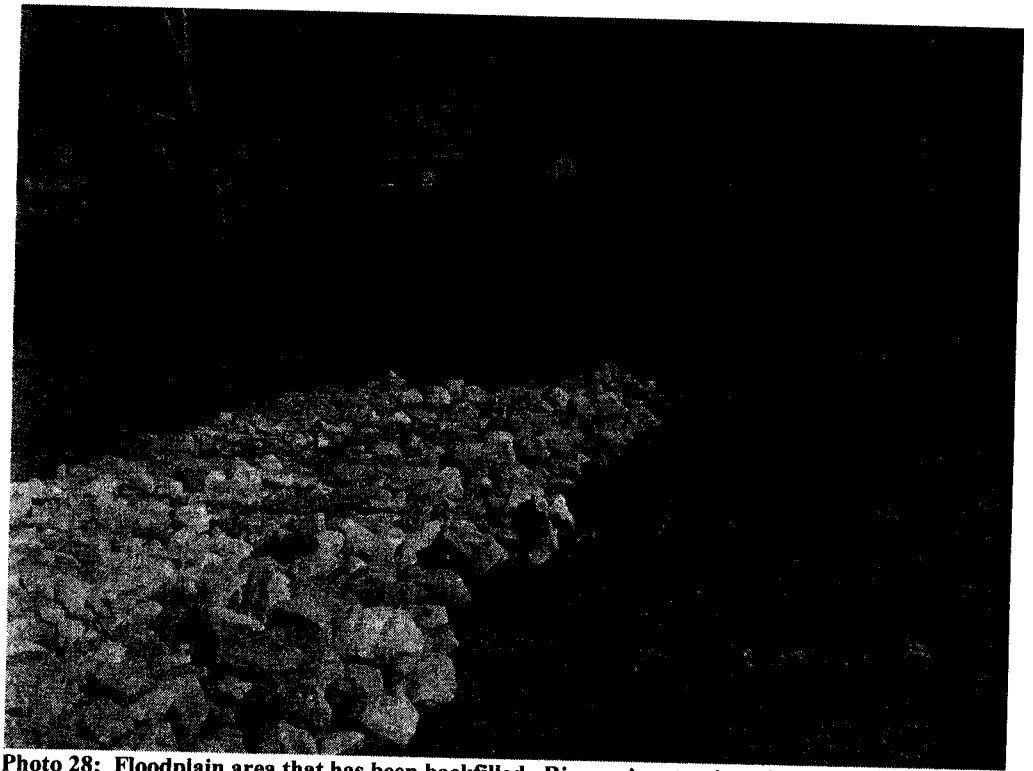

Photo 28: Floodplain area that has been backfilled. Rip rap is extension of site area drain outfall.

Photo 29: Silt fence had been installed by Jeffersontown along Chenoweth Run a few days earlier. Silt fence is downslope from the backfilled area.

Photo 30: Silt fence installed along Chenoweth Run downslope from the backfilled area.

Attachment 5

Louisville-Jefferson County Metropolitan Sewer District Private Construction Inspection

Magnolia Springs East

Weather: sunny, warm N38.30078 W085.49887

Mr. Jerry Whittum, SAIC, and Ms. Abigail Rains, Kentucky Division of Water (KDOW), observed Mr. Ronald Bradley, Construction Inspector, Louisville-Jefferson County Metropolitan Sewer District (MSD), conduct a stormwater inspection of a commercial construction site.

Inspector Statements/Observations:

- Mr. Bradley conducted the inspection to include generally walking around the building being constructed and the sediment basin, and reviewing the site self-inspection reports. The purposes of his typical inspection are to 1) verify correction of non-compliant issues he had previously identified, and 2) identify new non-compliant issues. Mr. Bradley's normal procedure includes observing the site and reviewing the site self-inspection reports.

- Mr. Bradley issues a Field Correction Notice (FCN) for non-compliance issues such as silt fence that isn't installed or maintained, and inlets that are not adequately protected. The FCN will be emailed to the Magnolia Springs East (site) contractor and copied to his MSD supervisor. Upon receipt of the FCN, the site contractor has two days to complete the corrections. Mr. Bradley inspects the site most weekdays and verifies the site contractor is actively addressing the issues identified in the FCN.

- Mr. Bradley may issue a FCN at his discretion and is authorized to issue a stop work order if he observes sediment moving off site or degradation of the MS4. Mr. Bradley's management can issue a Notice of Violation (NOV) and accompanying fine.

- Mr. Bradley observed the silt fence, sedimentation basin, and some stormwater area inlets.

SAIC Concerns:

SAIC was concerned that Mr. Bradley did not inspect each stormwater area inlet, did not walk near enough to the silt fence to ensure it was adequately maintained, did not walk the perimeter of the large area of the site that had disturbed soil, and did not inspect the area where the aboveground fuel tank was located.

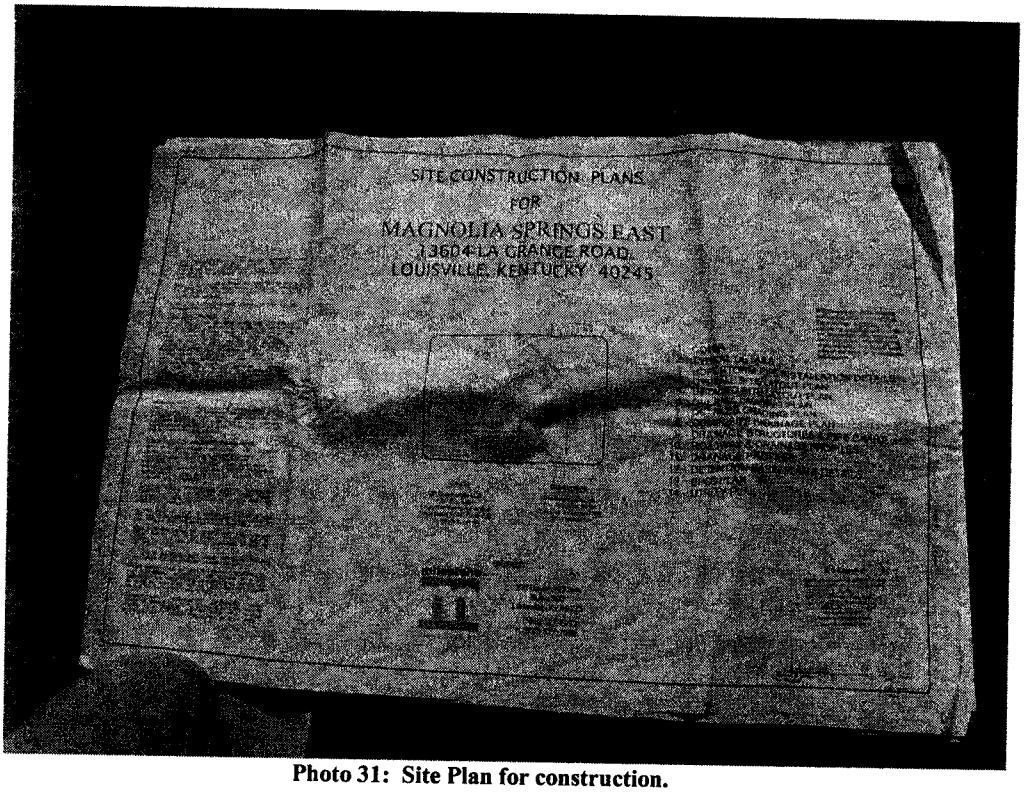

Photo 31: Site Plan for construction.

Photo 32: Area inlet located in a disturbed area was not inspected closely.

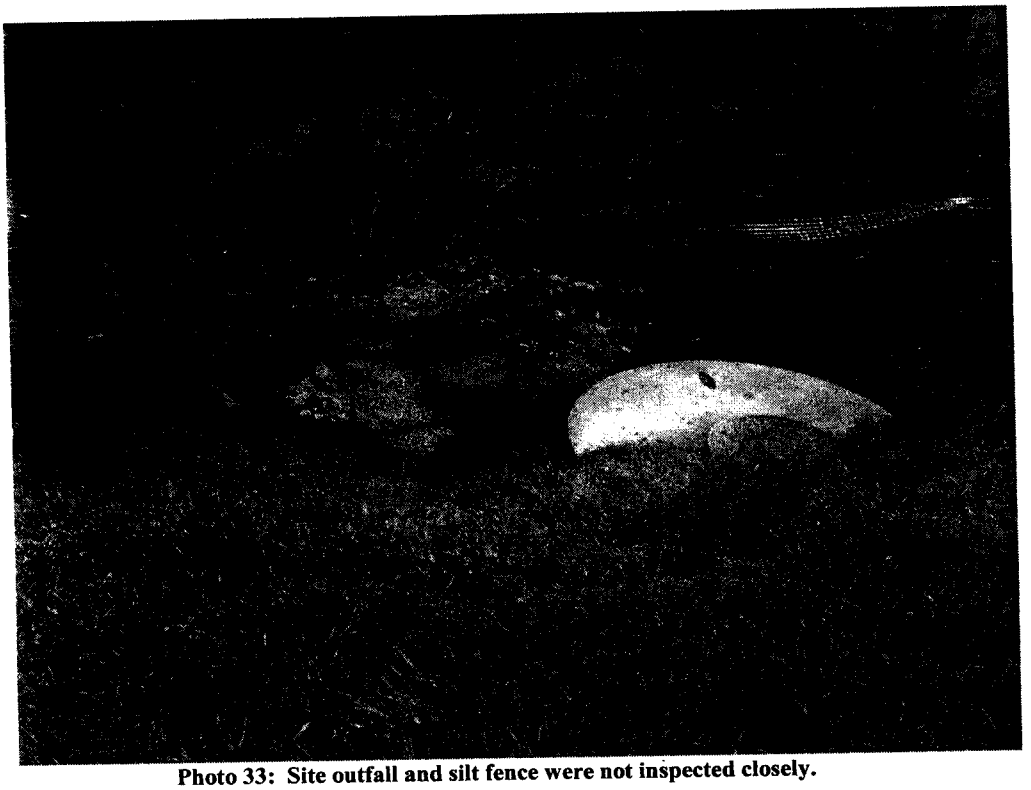

Photo 33: Site outfall and silt fence were not inspected closely.

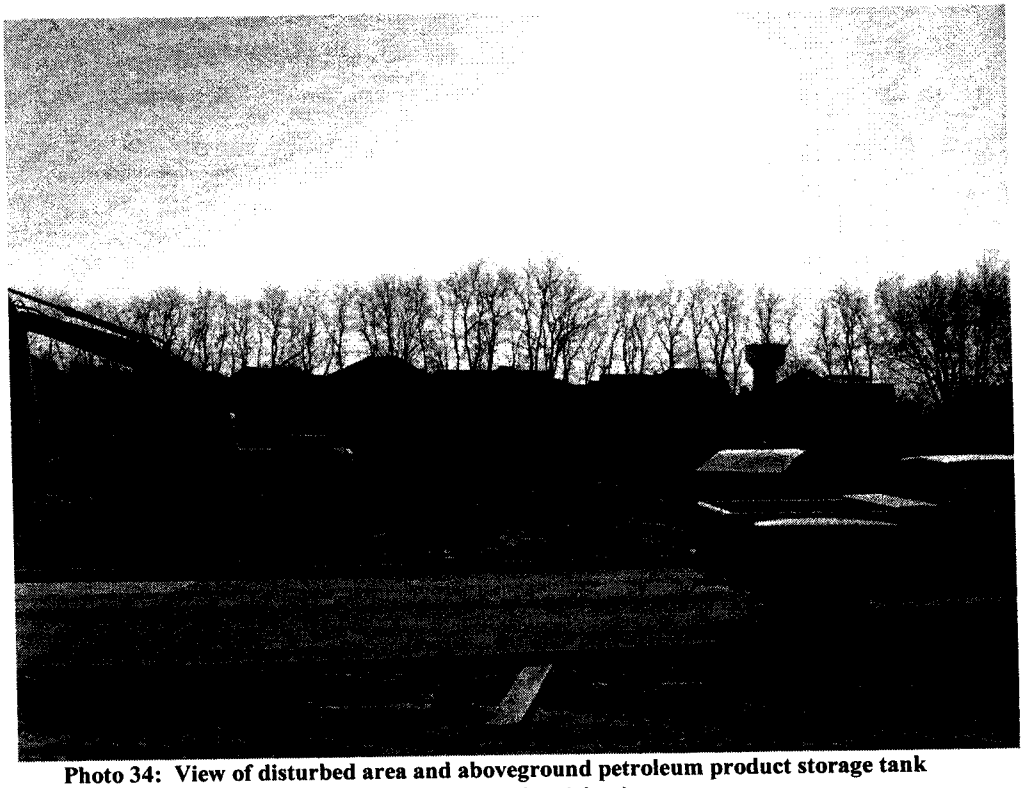

Photo 34: View of disturbed area and aboveground petroleum product storage tank (located behind the pickup).

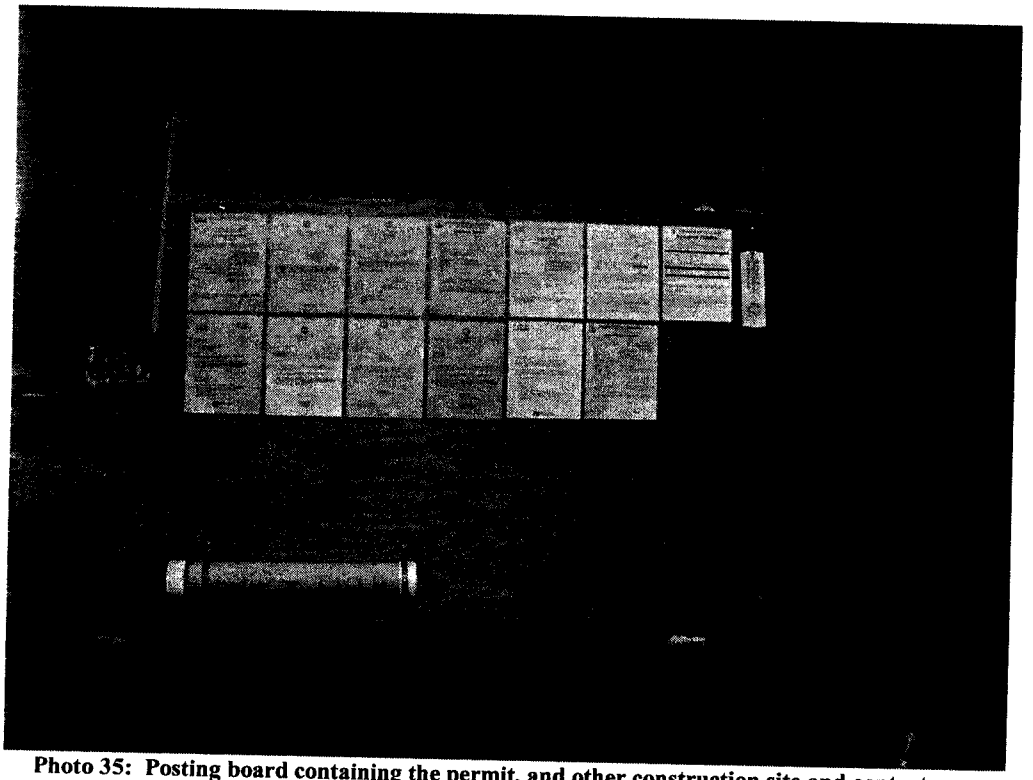

Photo 35: Posting board containing the permit, and other construction site and contact information. Self-inspection reports are kept in the MSD mailbox at photo left.

Attachment 6

Louisville-Jefferson County Metropolitan Sewer District Private Construction Inspection

Norton Commons

Weather: sunny, warm N38.32616 W085.56865

Mr. Jerry Whittum, SAIC, and Ms. Abigail Rains, Kentucky Division of Water (KDOW), observed Mr. Charles Crawford, Construction Inspector, Louisville-Jefferson County Metropolitan Sewer District (MSD), conduct a stormwater inspection of a single-family residential portion of the Norton Commons development. The site has a single developer and multiple builders who purchase and build on individual lots.

Inspector Statements/Observations:

- Mr. Crawford conducted the inspection to include walking along the streets and alleys of the site. The purposes of his inspection are to 1) verify correction of non-compliant issues he had previously identified, and 2) identify new non-compliant issues.

- Mr. Crawford issues a Field Correction Notice (FCN) for non-compliance issues such as silt fence that isn't installed or maintained, and an inadequate track out pad. His normal procedure is to collect field notes and photographs of non-compliance items and to then return to his truck where he drafts a FCN on his laptop. The FCN will be emailed to the Norton Commons developer and copied to his MSD supervision. The developer will receive the FCN the following morning and then be responsible to complete the corrections within two days. Upon receipt of the FCN, the developer will direct the owners/construction contractors of the individual lots to make the corrections.

- Mr. Crawford may issue a FCN at his discretion and is authorized to issue a stop work order if he observes sediment moving off site or degradation of the MS4. Mr. Crawford's management can issue a Notice of Violation (NOV) and accompanying fine.

- Mr. Crawford observed silt fence installation and maintenance, track out pads, and trash handling Best Management Practices (BMPs).

SAIC Concerns:

- SAIC was concerned that Mr. Crawford spends an inordinate amount of time issuing FCNs for non-compliance and then conducting follow-up inspections to verify the FCN identified items were corrected. During the follow up inspection, he often writes a new FCN for another non-compliance issue on the same site. As described above, the FCNs allow two days to make the correction.

Apparently since the FCNs do not include any penalty, the individual lot owners and developers allow the same non-compliant activities to continue. When it appears that the MSD may escalate enforcement to the issuance of an NOV, then the owners and developers will take corrective action to address the non-compliance issue.

- During the inspection, a lot owner/construction contractor was observed excavating soil for a basement. No BMPs were implemented to keep the soil on the site. Because sediment had not moved off the site, Mr. Crawford could only collect the information and at the end of the day issue a FCN. The FCN would allow the owner/construction contractor two days to install BMPs. In this situation, SAIC is concerned that the basement excavation will be completed and that contractor will leave the site before the required deadline of implementing BMPs. SAIC is concerned that a stop work order can only be issued after sediment has moved off the site.

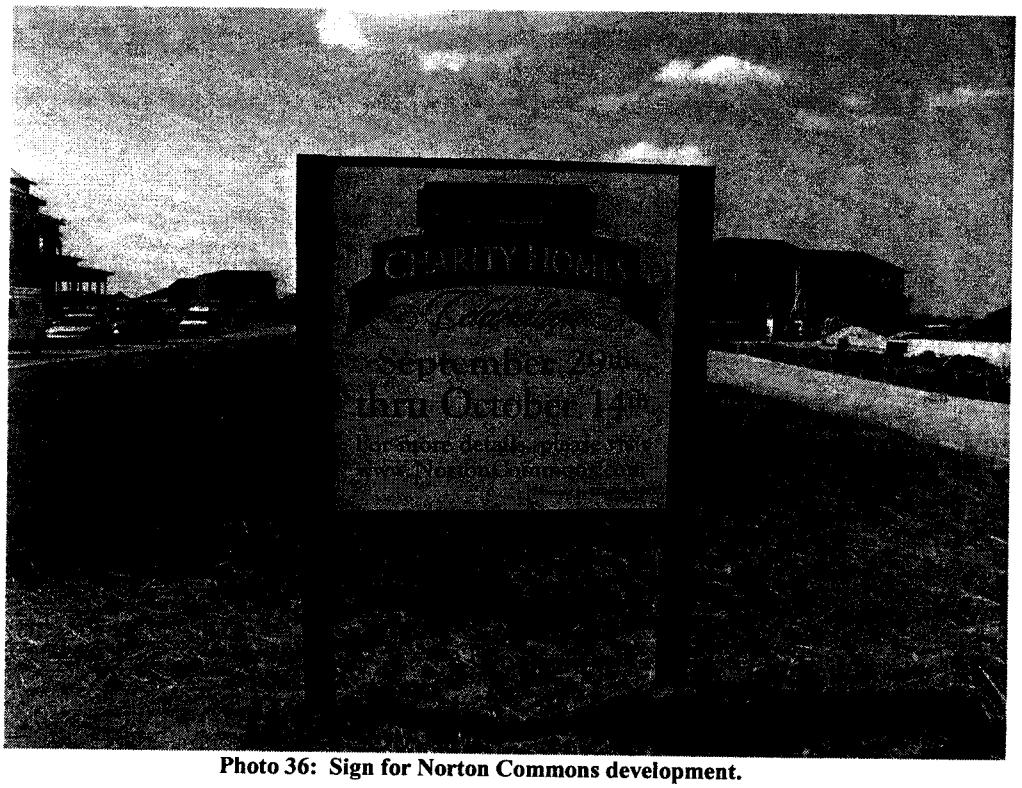

Photo 36: Sign for Norton Commons development.

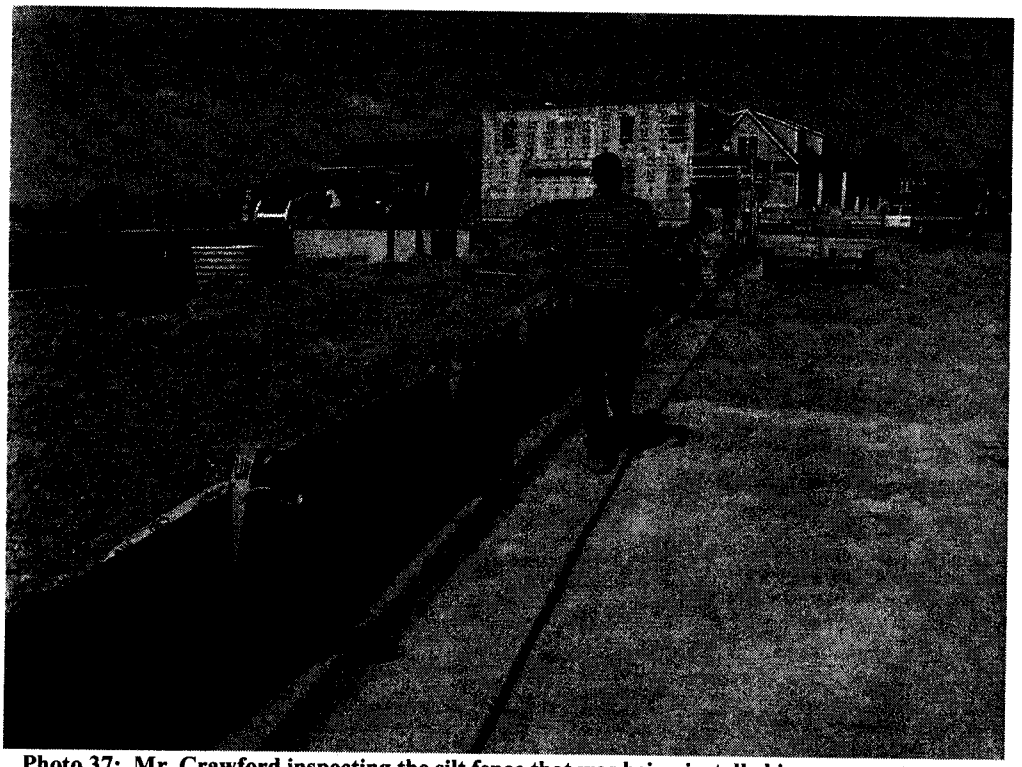

Photo 37: Mr. Crawford inspecting the silt fence that was being installed in response to a Field Correction Notice issued the previous day.

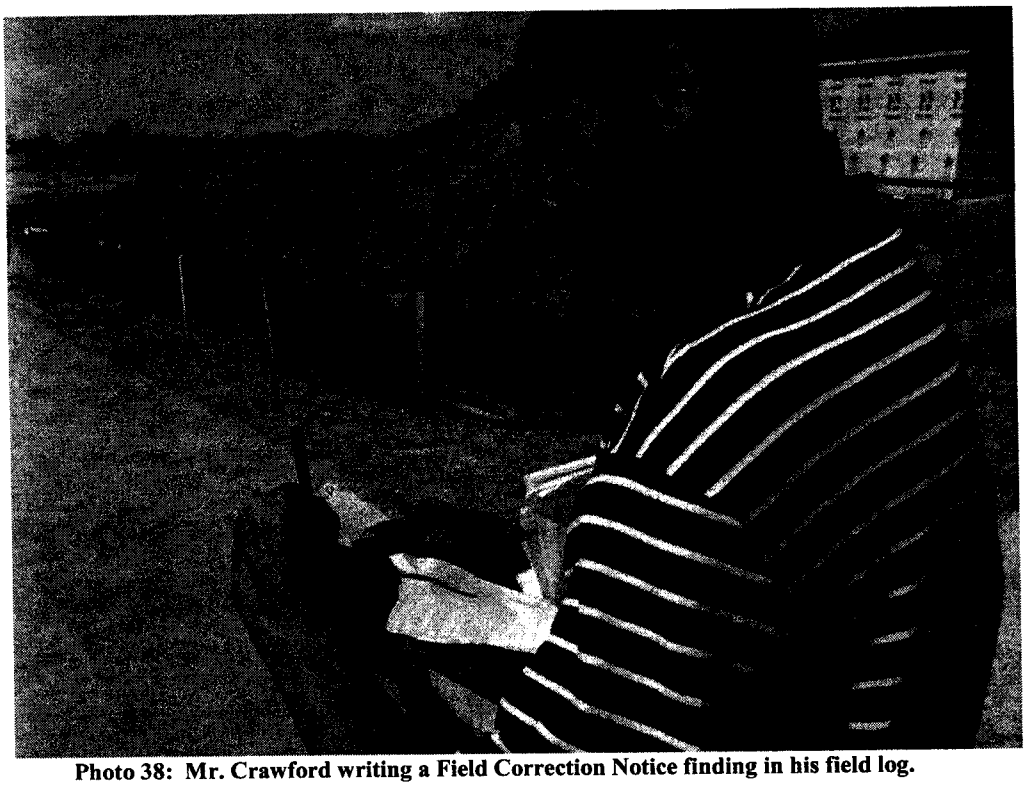

Photo 38: Mr. Crawford writing a Field Correction Notice finding in his field log.

Photo 39: Silt fence is not properly installed to provide protection at the joining of two sections of fencing.

Photo 40: Some construction trash was not placed in the trash wire bin and is susceptible to transport off site by the wind.

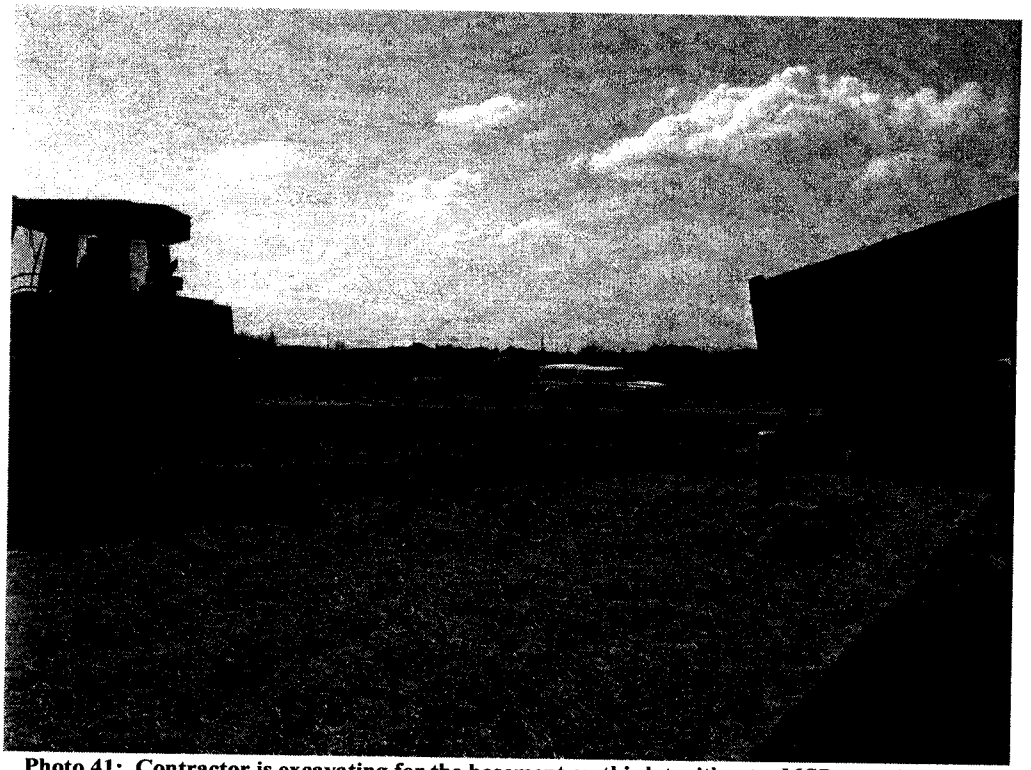

Photo 41: Contractor is excavating for the basement on this lot without a MSD permit or installation of Best Management Practices (BMPs).

Photo 42: Excavation for the basement without a MSD permit and BMPs.

Attachment 7

Louisville-Jefferson County Metropolitan Sewer District Municipal Construction Inspection

River Road Interceptor

Weather: sunny, warm N38.33347 W085.62685

Mr. Jerry Whittum, SAIC, and Ms. Abigail Rains, Kentucky Division of Water (KDOW), observed Mr. Alan Winchell, Construction Inspector, Louisville-Jefferson County Metropolitan Sewer District (MSD), conduct a stormwater inspection of the MSD River Road Interceptor site. The linear construction site includes approximately 10 acres of soil disturbance.

Inspector Statements/Observations:

- Mr. Winchell conducted the inspection to include reviewing the self-inspection reports and observing the site structural Best Management Practices (BMPs).

- Mr. Winchell led a walk-through inspection of the site. He thoroughly inspected the runoff controls, stone bag inlet protection, silt fence, stream crossings, and silt bag. He identified several issues with silt fence maintenance and installation.

- Mr. Winchell's standard practice is to inspect the site and identify all repair needs. He then escorts the contracted construction superintendent to the location of each needed repair to ensure they are promptly addressed.

SAIC Concerns:

SAIC was concerned that Mr. Winchell did not collect photographs to document his observations. However, his inspection report specifically identified each repair issue.

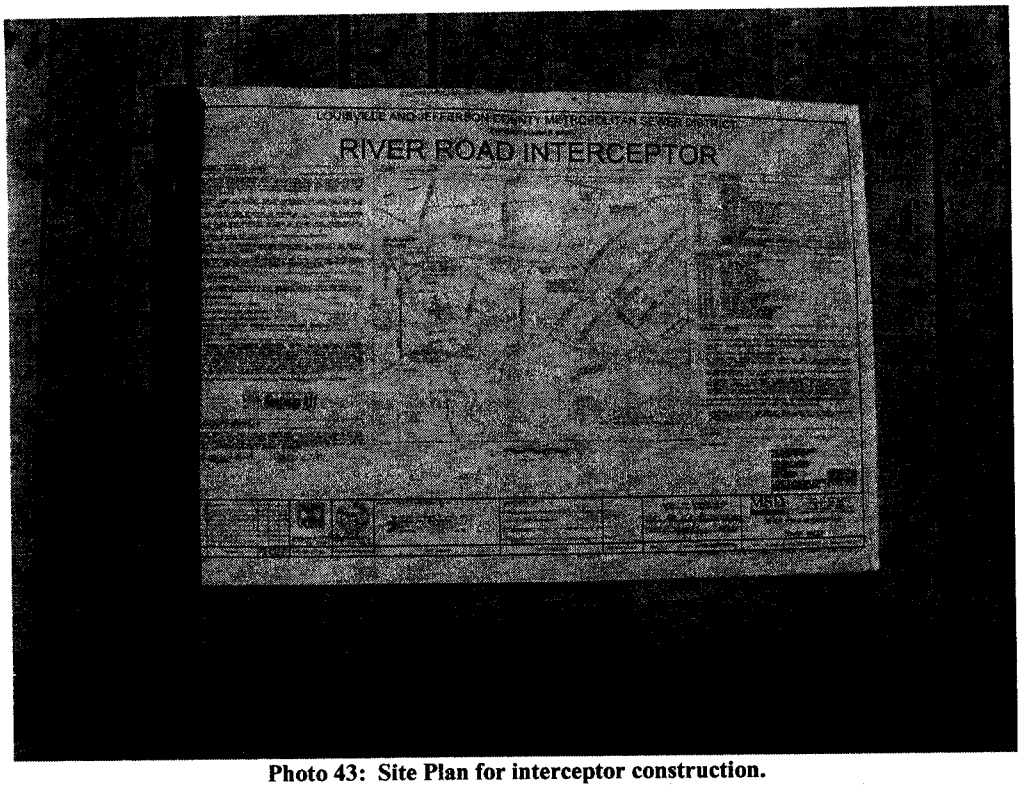

Photo 43: Site Plan for interceptor construction.

Photo 44: Posting board containing the permit, other construction site and contact information, and tube containing the self-inspection reports.

Photo 45: Stone bag installed to protect a stormwater area inlet.

Photo 46: Mr. Winchell inspecting silt fence along the stream.

Photo 47: Mr. Winchell observed a hole in the silt fence.

Photo 48: Mr. Winchell observed the silt fence was not properly trenched in.

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EPA United States Environmental Protection Agency

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MyProperty Search Results

The entered street address was found within EPA's Databases.

Search Criteria
You searched on: 931 west market street louisville, kentucky 40202
Standardized Address: 931 W Market St, Louisville, KY 40202
Map Centered at Latitude: 38.25626, **Longitude:** -85.76640
Map Width: 0.22 mi, **Map Height:** 0.28 mi
Query executed on 12/27/2016 at 11:28:45 AM
Please scroll down on the page for additional information.

Search for Superfund National Priority List sites within 30 miles of this location
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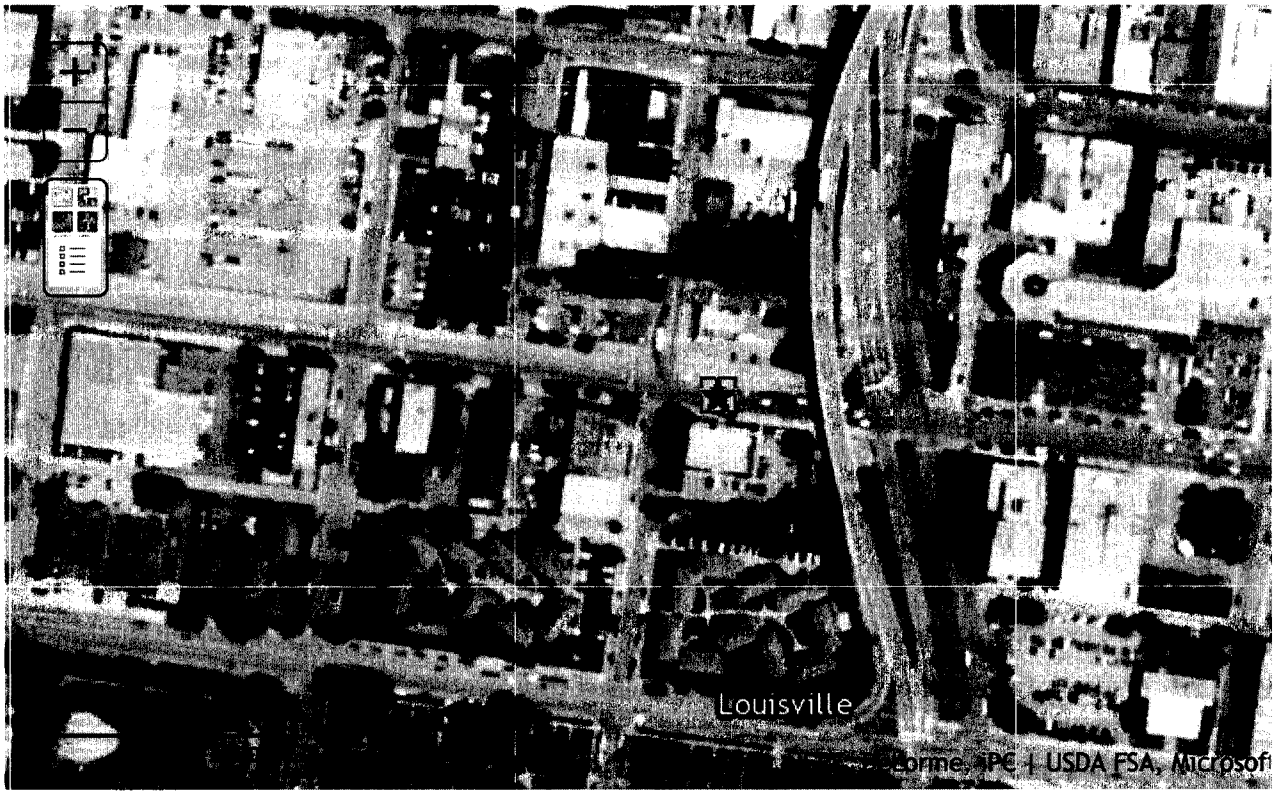

Facility	Map	Permits Compliance Status	Possible Site Clean-Up
MORGAN'S CHEVRON 931 W MARKET ST LOUISVILLE, KY 40202		No Violation	No

Databases Searched

Please contact appropriate state agency(s) who may have additional information.

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Last updated on July 29, 2016

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EPA United States Environmental Protection Agency

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MyProperty Search Results

The entered street address was found within EPA's Databases.

Search Criteria
You searched on: 1234 rowan street louisville, kentucky 40203
Standardized Address: 1234 Rowan St, Louisville, KY 40203
Map Centered at Latitude: 38.25955, **Longitude:** -85.77099
Map Width: 0.22 mi, **Map Height:** 0.28 mi
Query executed on 12/27/2016 at 11:36:40 AM
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#5

Facility	Map	Permits Compliance Status	Possible Site Clean-Up
BAUGHMAN GROUP 1234 ROWAN ST LOUISVILLE, KY 40203		No Violation	No

Databases Searched

Please contact appropriate state agency(s) who may have additional information.

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Last updated on July 29, 2016